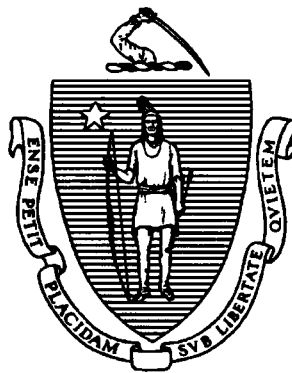


Commonwealth of Massachusetts

Public Employee Retirement
Administration Commission



INVESTMENT REPORT

MASSACHUSETTS CONTRIBUTORY RETIREMENT
SYSTEMS FOR PUBLIC EMPLOYEES

DECEMBER 31, 1996

WILLIAM F. WELD

Governor

ARGEO PAUL CELLUCCI

Lieutenant Governor

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ROBERT F. STALNAKER, EXECUTIVE DIRECTOR

June 9, 1997

The Massachusetts public pension environment experienced dramatic change in 1996 as a result of the passage of Chapter 306 of the Acts of 1996. In spite of the far reaching implications of that measure none of its provisions reformed the statutes governing pension fund investment. Clearly, this represents an endorsement of the excellent work the retirement boards have done in investing system assets. That record of excellence continued in 1996 as boards once again reaped the benefits of prudent investment planning and asset class diversification. In addition, as recent actuarial valuations underscore, successful investment strategies have been the basis for significant improvement in the fiscal condition of our retirement systems. The progress achieved in the funding status of the systems provides tangible long term benefits to taxpayers, employees and retirees.

Massachusetts retirement systems averaged a return of 14.17% in 1996. In the twelve year period from 1985 through 1996 the average annualized return has been 11.65%. Actuarial gains have taken place in most systems as a result of the variance between actual returns and assumed rates of return which are generally in the 8.0% to 8.5% range. Nationally, the Wilshire Associates' Trust Universe Comparison Service's calculations of performance by public pension funds recorded average returns of 14.2% for 1996 and 11.2% for the 1987 through 1996 period. Throughout this entire period performance of our pension funds has been competitive with public and private pension funds across the nation.

The regulatory environment in which Massachusetts' Retirement Boards have operated has served a useful purpose in the transition from Legal List investing to modern portfolio management. However, retirement boards have nearly fifteen years of experience in flexible fund management and it is now time to review PERAC regulations in this area and, if necessary, revise those regulations in light of the current level of expertise and past performance of the retirement systems.

This is the first Investment Performance Report issued by PERAC. Previous reports have been issued by PERA Commissioner John J. McGlynn. I would be remiss if I did not take this opportunity to recognize the contribution Commissioner McGlynn made in the modernization of the investment and management of our retirement systems. Building on his work we have a firm foundation for future progress.

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert F. Stalnaker". The signature is fluid and cursive, with the first name "Robert" and last name "Stalnaker" clearly distinguishable.

Robert F. Stalnaker
Executive Director

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PART I:

ANNUAL REPORT OF THE MASSACHUSETTS CONTRIBUTORY RETIREMENT SYSTEMS FOR THE YEAR ENDING DECEMBER 31, 1996

Public pension assets in Massachusetts are invested by 104 retirement boards and the Pension Reserves Investment Management Board (P.R.I.M.). Each retirement board is responsible for the assets of its system while, as a result of Chapter 315 of the Acts of 1996, the P.R.I.M. Board invests the pension funds of the Commonwealth as well as the assets of local systems which have purchased shares of the Pension Reserves Investment Trust Fund (P.R.I.T.). In 1996 the Investment Committee of the State Treasurer's Office invested the annuity accounts of the State Employees' Retirement System and the Teachers' Retirement System. This report will provide a rate of return for the State Employees' Retirement System and the Teachers' Retirement System which includes the performance of the Treasurer's Investment Committee and the Pension Reserves Investment Management Board. Although PRIM is separately listed, the Treasurer's Office is not. The return on assets, exclusively the responsibility of the Investment Committee of the State Treasurer's Office in 1996 was 13.0%.

The breathtaking performance of the capital markets continued in 1996 and Massachusetts' pension funds took full advantage. Significant strides in the financial condition of the retirement systems resulting from the excellent investment performance since 1985 are now reflected in the actuarial valuations of the systems. It is important for retirement boards and system members to keep in mind the fact that investment does not take place in a vacuum, but, rather, is directly associated with the ability of the retirement system to pay benefits. Investment planning, asset allocation and manager selection must be guided by the financial condition of the retirement system.

This report details investment performance for 1996, 1992-1996, and 1985-1996. The most appropriate measure of investment success is long term performance. As these results indicate, with few exceptions the Massachusetts pension systems have achieved that success.

Actuarial valuations establish an assumed rate of return which, on a long term basis, forms a performance target for retirement boards. For many Massachusetts systems the assumed rate of return is 8.5%. In 1996 the average rate of return was 14.17%, from 1992-1996 the average rate of return was 11.00%, and from 1985-1996 the average rate of return was 11.65%. (See Figures 1 and 2).

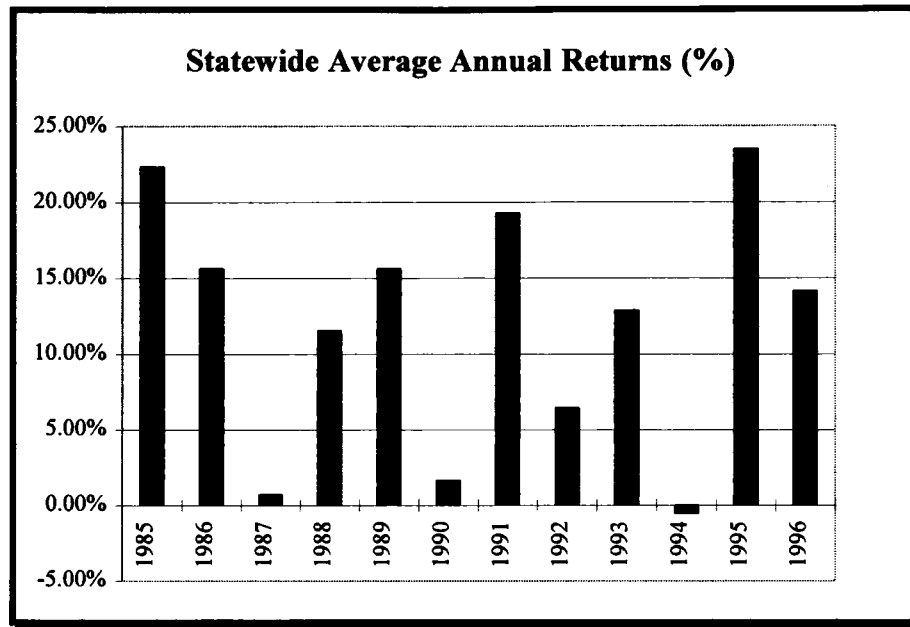


Figure 1

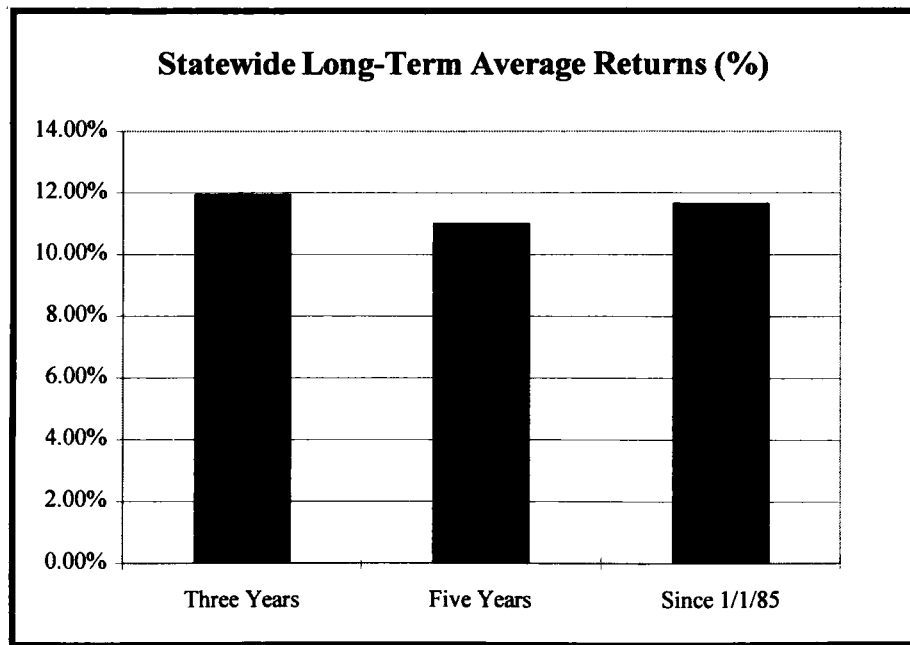


Figure 2

The tables that follow contain this information:

Table One: 1996 Returns and Annualized Past Returns

Table Two: Returns for 1985, through and including 1995

Please note:

- The State Employees' and Teachers' Retirement Systems invest in a trust administered by the Investment Committee of the State Treasurer (MASTERS Trust). The Office of the Treasurer has reported a return of 13%. This return differs from that reported in this booklet because the returns reported in this booklet include those assets of the State Employees' and Teachers' Retirement Systems invested with the PRIT Fund.
- PERAC employs the generally recognized methodology of the Bank Administration Institute in computing returns.
- Prior to the finalization of performance figures, retirement boards are provided with an opportunity to review the records on which returns are based.
- PERAC accounting regulations permit retirement boards to treat separately managed international advisors as pooled fund investments. PERAC's Investment Unit generally also treats such investments as pooled funds for accounting purposes.

The following is a list of retirement systems which did not provide PERAC with all of the required accounting information for 1996. PERAC utilized available information, but information not submitted may impact certain statistics contained in this report including rates of return, fees, market value, and portfolio turnover.

- Woburn. Board did not submit trial balances and submitted cashbooks which did not reflect investment activity. PERAC utilized bank statements for investment accounting but was unable to record non-investment cash flows.
- Berkshire County. Board did not submit trial balances and cashbooks for October, November, and December. PERAC utilized bank statements for investment accounting, but was unable to record non-investment cash flows for this period.

***Annual Report of the
Massachusetts Contributory Retirement Systems
for the year ending December 31, 1996***

Table One

1996 Returns and Annualized Past Returns

Page One

<u>Retirement System</u>	<u>1996 Return</u>	<u>Five Years Return</u>	<u>Since January 1985 Return</u>
ADAMS	13.08	10.62	11.15
AMESBURY	9.58	9.16	10.26
ANDOVER	17.67	7.26	11.61
ARLINGTON	14.69	11.54	11.93
ATHOL	10.35	7.33	9.65
ATTLEBORO	13.16	9.64	11.04
 BARNSTABLE COUNTY	 13.11	 10.16	 9.27
BELMONT	15.13	12.15	11.48
BERKSHIRE COUNTY	9.61	10.47	10.92
BEVERLY	13.66	10.14	10.57
BLUE HILLS REG VO	12.09	10.98	10.87
BOSTON	13.31	11.00	11.75
 BRAINTREE	 9.13	 8.66	 10.83
BRISTOL COUNTY	11.16	9.60	10.47
BROCKTON	13.81	12.01	11.12
BROOKLINE	10.66	11.18	11.44
CAMBRIDGE	15.04	12.22	11.51
CHELSEA	15.47	10.22	11.34
 CHICOPEE	 11.17	 10.63	 10.91
CLINTON	14.71	9.77	9.54
CONCORD	9.93	9.97	11.03
DANVERS	9.48	9.14	10.47
DEDHAM	18.16	12.40	12.00
DUKES COUNTY	14.06	10.11	8.88
 EASTHAMPTON	 7.79	 7.96	 10.89
ESSEX COUNTY	11.76	10.60	11.54
EVERETT	16.80	11.24	12.23

<u>Retirement System</u>	<u>1996 Return</u>	<u>Five Years Return</u>	<u>Since January 1985 Return</u>
FAIRHAVEN	17.70	12.21	11.54
FALL RIVER	12.78	9.63	11.74
FALMOUTH	14.35	10.92	12.31
FITCHBURG	9.96	8.23	10.21
FRAMINGHAM	16.04	11.88	11.88
FRANKLIN COUNTY	9.35	9.64	9.76
GARDNER	18.32	12.42	11.69
GLOUCESTER	12.04	11.19	12.05
GREATER LAWRENCE	9.44	8.96	8.55
GREENFIELD	13.22	10.17	10.68
HAMPDEN COUNTY	10.14	10.38	11.16
HAMPSHIRE COUNTY	12.12	10.97	10.83
HAVERHILL	16.25	11.40	12.17
HINGHAM	18.00	12.23	11.35
HOLYOKE	10.71	10.76	12.18
HULL	12.34	9.17	9.29
LAWRENCE	10.41	7.89	10.38
LEOMINSTER	10.95	9.01	10.40
LEXINGTON	12.07	10.91	11.83
LOWELL	15.68	11.54	11.00
LYNN	10.62	7.28	10.70
MALDEN	13.42	8.27	11.13
MARBLEHEAD	16.35	9.87	11.41
MARLBOROUGH	9.89	9.92	10.79
MASS HOUSING FINA	9.28	9.15	8.87
MASS PORT AUTH	11.02	9.61	12.19
MASS TURNPIKE AUT	9.77	9.01	11.13

<u>Retirement System</u>	<u>1996 Return</u>	<u>Five Years Return</u>	<u>Since January 1985 Return</u>
MASS WATER RESOUR	12.26	9.32	N/A
MAYNARD	13.96	10.20	9.35
MEDFORD	12.93	10.49	11.10
MELROSE	10.75	9.83	11.19
METHUEN	11.11	10.22	10.38
MIDDLESEX COUNTY	13.08	11.04	12.03
MILFORD	14.69	10.11	10.48
MILTON	17.98	12.42	11.87
MINUTEMAN REG VO	18.00	12.31	11.95
MONTAGUE	17.97	12.27	10.97
NATICK	14.79	11.22	12.26
NEEDHAM	18.23	12.43	12.48
NEW BEDFORD	12.64	9.58	9.09
NEWBURYPORT	8.24	8.74	9.96
NEWTON	13.52	11.68	11.30
NORFOLK COUNTY	13.78	10.68	11.73
NORTH ADAMS	12.85	8.32	10.98
NORTH ATTLEBORO	14.55	10.74	10.83
NORTHAMPTON	12.08	8.13	10.63
NORTHBRIDGE	18.45	12.40	11.51
NORWOOD	15.81	11.33	11.58
PEABODY	11.17	11.24	11.67
PITTSFIELD	9.54	10.37	11.04
PLYMOUTH	12.70	9.76	11.99
PLYMOUTH COUNTY	16.37	12.15	12.05
PRIM BOARD	16.85	12.16	12.35
QUINCY	11.84	10.47	10.04

<u>Retirement System</u>	<u>1996 Return</u>	<u>Five Years Return</u>	<u>Since January 1985 Return</u>
READING	18.19	12.39	11.34
REVERE	16.37	10.21	9.52
SALEM	12.11	10.18	10.74
SAUGUS	18.00	12.34	11.17
SHREWSBURY	13.44	10.16	11.19
SOMERVILLE	15.49	10.27	10.69
SOUTHBRIDGE	11.92	11.37	10.63
SPRINGFIELD	11.28	10.01	11.59
STATE	14.76	11.43	12.01
STATE TEACHERS	14.56	11.35	12.03
STONEHAM	11.60	9.39	11.07
SWAMPSCOTT	10.98	7.77	11.24
TAUNTON	12.22	10.52	12.70
WAKEFIELD	18.39	12.39	12.37
WALTHAM	15.50	10.99	12.29
WATERTOWN	13.81	10.87	10.82
WEBSTER	10.08	9.98	9.50
WELLESLEY	17.88	13.58	14.01
WEST SPRINGFIELD	10.28	9.00	10.13
WESTFIELD	13.68	11.13	11.62
WEYMOUTH	18.49	12.52	13.06
WINCHESTER	13.21	11.13	11.79
WINTHROP	12.91	12.28	11.88
WOBURN	9.92	10.19	12.04
WORCESTER	15.11	11.08	11.18
WORCESTER COUNTY	13.45	9.77	10.84

*Annual Report of the
Massachusetts Contributory Retirement Systems
for the year ending December 31, 1996*

Table Two

Historical Annual Returns

Page One

<u>Retirement System</u>	<u>1995 Return</u>	<u>1994 Return</u>	<u>1993 Return</u>	<u>1992 Return</u>	<u>1991 Return</u>	<u>1990 Return</u>	<u>1989 Return</u>	<u>1988 Return</u>	<u>1987 Return</u>	<u>1986 Return</u>	<u>1985 Return</u>
ADAMS	23.62	-0.46	9.19	9.04	17.97	5.37	11.52	6.58	5.35	9.14	26.30
AMESBURY	20.42	-1.53	12.12	6.36	19.50	5.21	14.00	10.95	0.23	10.19	18.62
ANDOVER	22.33	-5.21	2.91	1.08	43.23	-0.12	13.26	10.18	0.95	15.15	26.79
ARLINGTON	27.61	-0.83	9.83	8.33	17.80	3.11	15.81	10.23	3.11	16.64	20.13
ATHOL	16.29	-2.10	6.48	6.50	15.63	7.91	14.09	9.00	3.72	9.82	19.90
ATTLEBORO	22.79	-3.04	10.44	6.48	19.32	5.27	19.11	6.92	2.48	12.91	19.87
BARNSTABLE COUNTY	23.56	-1.07	9.21	7.45	17.72	-1.32	9.15	9.14	-5.48	12.69	21.15
BELMONT	26.93	-1.36	11.45	10.44	20.76	0.41	17.03	10.95	-2.90	9.59	23.88
BERKSHIRE COUNTY	24.40	-1.04	11.35	9.49	18.31	5.08	10.49	9.17	1.83	13.25	21.92
BEVERLY	25.17	-1.50	9.47	5.66	22.64	1.65	10.28	10.64	-0.71	12.97	20.71
BLUE HILLS REG VO	25.90	-2.50	11.41	9.84	19.67	3.83	15.39	9.51	3.09	13.35	11.67
BOSTON	23.14	0.75	13.74	5.41	21.53	-2.82	20.36	12.73	-3.78	16.12	25.65
BRAINTREE	20.45	-0.61	7.94	7.42	16.64	2.68	13.84	10.59	5.18	16.41	22.88
BRISTOL COUNTY	25.28	-3.14	10.35	6.22	19.18	6.01	15.18	7.70	-1.20	11.43	21.05
BROCKTON	23.05	-1.81	18.10	8.57	20.22	-0.91	11.62	8.12	1.63	12.47	22.38
BROOKLINE	26.35	-1.75	12.41	10.01	23.33	1.54	19.78	9.81	0.95	11.78	16.24
CAMBRIDGE	25.71	-1.05	13.33	9.74	16.01	0.02	10.95	7.91	-2.86	16.69	31.96
CHELSEA	24.25	-4.09	11.05	6.45	21.55	5.70	14.75	9.43	-1.82	13.48	24.06
CHICOPEE	23.88	-2.02	13.09	8.60	18.74	4.39	13.10	12.42	-0.18	10.53	20.23
CLINTON	16.51	-0.67	11.17	8.01	17.73	-0.18	7.65	7.81	-5.31	12.45	28.89
CONCORD	22.33	-1.18	11.57	8.47	20.41	4.48	17.24	10.48	3.68	10.67	16.77
DANVERS	20.86	-1.95	11.97	6.57	20.13	5.79	14.05	10.57	1.70	9.84	19.13
DEDHAM	24.10	0.54	16.08	4.84	15.46	-1.64	16.43	9.98	3.61	12.67	27.93
DUKES COUNTY	21.49	-1.13	10.50	6.91	10.89	-1.61	8.31	12.01	-4.55	10.68	22.68
EASTHAMPTON	19.23	-2.34	8.37	7.80	17.85	8.20	16.51	12.83	1.99	14.07	20.94
ESSEX COUNTY	23.17	-0.46	11.40	8.43	16.93	4.56	13.07	11.87	-1.19	17.16	25.17
EVERETT	25.64	-3.43	12.24	7.07	23.43	5.57	20.01	6.85	0.98	13.56	22.43

<u>Retirement System</u>	<u>1995 Return</u>	<u>1994 Return</u>	<u>1993 Return</u>	<u>1992 Return</u>	<u>1991 Return</u>	<u>1990 Return</u>	<u>1989 Return</u>	<u>1988 Return</u>	<u>1987 Return</u>	<u>1986 Return</u>	<u>1985 Return</u>
FAIRHAVEN	23.53	0.82	15.70	4.88	15.31	-1.44	16.59	13.29	4.19	9.68	21.53
FALL RIVER	23.62	-3.63	11.28	5.91	22.01	6.14	18.03	6.41	1.94	15.35	25.14
FALMOUTH	30.87	1.14	4.32	6.32	23.87	7.09	21.10	9.76	2.30	12.41	18.37
FITCHBURG	21.21	-1.54	7.32	5.43	21.00	5.24	17.14	10.40	1.32	12.41	15.35
FRAMINGHAM	25.55	-3.04	14.57	8.32	20.85	4.94	13.53	9.55	2.63	13.56	19.37
FRANKLIN COUNTY	22.46	-1.49	10.71	8.51	17.18	5.61	11.95	9.51	-0.24	7.73	18.34
GARDNER	24.07	0.66	15.94	4.82	15.13	-1.22	16.97	13.41	3.16	12.94	19.45
GLOUCESTER	25.68	-0.65	11.28	9.17	18.15	3.89	13.23	13.68	-0.45	16.57	25.69
GREATER LAWRENCE	21.00	-3.01	10.70	8.02	18.70	3.80	11.36	8.13	1.71	7.28	7.69
GREENFIELD	20.03	-3.41	12.06	10.33	18.23	5.92	15.28	8.34	0.30	13.19	17.23
HAMPDEN COUNTY	23.67	-0.73	11.48	8.70	18.05	2.24	15.12	11.37	2.03	13.89	20.78
HAMPSHIRE COUNTY	21.96	0.19	13.99	7.75	15.24	4.88	14.16	8.25	4.40	11.73	17.17
HAVERHILL	23.61	-0.29	9.68	9.19	20.32	1.30	13.43	13.40	2.87	16.80	22.71
HINGHAM	23.72	0.64	15.64	4.78	14.23	-1.32	14.69	10.89	0.95	15.32	22.28
HOLYOKE	25.08	-0.71	11.63	8.60	18.50	3.50	13.13	12.85	4.23	14.15	27.88
HULL	18.07	0.19	8.12	7.93	15.01	3.23	9.39	9.79	0.57	11.36	17.28
LAWRENCE	23.59	-6.17	11.91	2.03	27.20	3.22	19.04	5.44	-2.18	12.24	23.67
LEOMINSTER	22.96	-2.80	8.83	6.67	17.39	5.19	13.93	10.03	2.47	12.21	19.64
LEXINGTON	26.47	-0.66	10.17	8.20	24.85	2.05	13.48	9.57	-0.91	15.67	25.47
LOWELL	23.29	3.72	8.10	7.94	16.60	1.39	11.92	7.32	3.74	14.50	20.21
LYNN	24.28	-6.05	8.50	1.39	33.49	0.12	17.50	11.62	-1.95	12.20	23.66
MALDEN	22.74	-4.78	9.12	2.87	36.08	0.21	20.33	11.98	-2.94	9.38	22.27
MARBLEHEAD	24.01	-0.19	8.97	2.04	35.37	0.81	18.96	10.61	-3.24	7.88	21.90
MARLBOROUGH	21.00	-0.14	11.34	8.54	18.05	4.21	14.08	14.11	-0.71	9.91	21.89
MASS HOUSING FINA	23.48	-2.11	11.89	4.80	15.28	-1.67	16.84	13.80	-0.90	9.39	9.58
MASS PORT AUTH	20.87	-1.32	10.71	7.91	20.51	4.32	19.14	11.34	3.93	18.68	22.18
MASS TURNPIKE AUT	21.59	-0.81	7.86	7.81	15.38	6.88	14.03	10.78	3.15	16.90	22.68

Retirement System	1995 Return	1994 Return	1993 Return	1992 Return	1991 Return	1990 Return	1989 Return	1988 Return	1987 Return	1986 Return	1985 Return
MASS WATER RESOUR	20.01	-3.37	12.10	7.00	17.42	-1.02	14.60	10.66	6.32	5.78	N/A
MAYNARD	23.27	-3.67	11.55	7.68	14.80	-3.33	5.94	7.72	1.10	9.91	27.80
MEDFORD	22.87	-0.63	10.09	8.47	15.31	5.07	14.70	10.00	1.41	15.12	20.35
MELROSE	20.27	-0.68	12.09	7.76	17.22	3.12	16.27	10.35	2.11	16.48	21.15
METHUEN	24.86	-2.15	11.51	7.44	15.52	2.43	13.21	8.16	1.87	13.51	20.03
MIDDLESEX COUNTY	22.16	0.38	13.49	7.25	22.06	1.83	16.33	11.16	2.06	14.89	22.92
MILFORD	21.71	-2.08	11.59	6.12	23.20	5.77	16.95	8.05	-4.86	8.98	19.66
MILTON	24.07	0.84	16.01	4.88	15.42	-1.59	16.88	13.49	4.46	10.93	22.53
MINUTEMAN REG VO	23.75	0.66	15.91	4.89	14.70	-1.55	16.90	13.87	4.49	22.05	13.17
MONTAGUE	23.66	0.78	15.67	4.86	15.68	-1.34	16.39	13.56	4.86	9.15	13.28
NATICK	26.51	-0.49	8.02	9.03	21.50	3.47	17.21	10.91	-0.09	14.56	25.80
NEEDHAM	23.93	0.95	15.90	4.78	15.32	-1.55	16.84	13.83	4.67	20.76	19.58
NEW BEDFORD	23.17	-1.61	9.14	6.03	20.95	-3.36	10.07	8.04	-6.31	13.68	21.48
NEWBURYPORT	20.91	-2.12	11.98	5.98	21.03	5.07	13.61	10.32	-1.62	9.18	20.08
NEWTON	24.71	-1.46	15.08	8.23	22.80	-4.57	16.02	13.60	-3.83	14.33	22.46
NORFOLK COUNTY	22.43	-0.71	14.55	4.82	15.08	-1.16	16.62	13.42	4.14	17.47	23.77
NORTH ADAMS	23.52	-4.94	8.27	3.96	31.57	2.31	19.79	9.31	-2.33	9.84	23.80
NORTH ATTLEBORO	21.13	2.60	10.50	5.86	18.19	3.07	15.93	9.60	0.57	12.66	17.64
NORTHAMPTON	23.66	-4.69	7.89	3.70	32.38	2.24	18.12	11.28	-6.82	12.44	22.07
NORTHBRIDGE	23.90	0.43	16.01	4.92	15.30	-1.51	16.99	13.50	3.78	10.34	19.33
NORWOOD	25.01	-0.73	11.39	6.84	14.96	6.60	17.01	11.22	2.83	13.30	17.17
PEABODY	25.65	-0.21	12.54	8.56	17.96	3.01	13.43	12.77	-0.41	15.77	23.23
PITTSFIELD	23.74	-0.36	11.58	8.66	17.85	4.79	15.12	9.54	-1.81	13.05	24.07
PLYMOUTH	25.38	1.56	3.30	7.49	24.77	6.89	16.18	8.33	-2.04	15.73	28.32
PLYMOUTH COUNTY	23.21	5.17	8.04	8.92	18.49	4.08	12.83	10.46	-1.30	16.71	24.66
PRIM BOARD	24.13	0.41	16.31	4.77	14.69	-2.27	17.90	13.43	3.25	19.94	22.76
QUINCY	23.41	-1.29	10.66	9.14	19.07	4.09	13.43	6.36	-4.66	13.30	18.62

<u>Retirement System</u>	<u>1995 Return</u>	<u>1994 Return</u>	<u>1993 Return</u>	<u>1992 Return</u>	<u>1991 Return</u>	<u>1990 Return</u>	<u>1989 Return</u>	<u>1988 Return</u>	<u>1987 Return</u>	<u>1986 Return</u>	<u>1985 Return</u>
READING	24.10	0.54	15.96	4.87	15.43	-1.67	16.91	11.71	-2.77	10.73	26.85
REVERE	23.22	-2.08	7.81	7.42	15.65	3.71	8.79	9.26	2.40	9.66	14.44
SALEM	23.11	-0.57	10.66	6.92	18.73	3.31	12.86	7.39	2.99	14.57	19.46
SAUGUS	23.79	0.72	15.80	5.00	14.94	-1.32	16.55	13.50	3.98	11.50	14.53
SHREWSBURY	24.55	-1.68	11.42	4.80	15.19	-1.68	16.87	13.81	4.42	19.33	17.28
SOMERVILLE	22.82	-1.14	9.76	5.91	20.13	0.94	13.07	10.79	-7.08	13.14	29.94
SOUTHBRIDGE	23.73	0.45	12.92	9.07	17.76	3.55	6.77	7.82	-2.85	16.06	23.91
SPRINGFIELD	22.95	-1.50	11.46	7.25	22.90	5.76	19.93	8.54	-1.18	14.91	20.45
STATE	23.86	-0.30	14.85	5.53	18.10	0.44	15.70	12.67	1.89	16.17	24.10
STATE TEACHERS	23.87	-0.17	13.86	6.14	18.53	1.95	15.64	12.54	0.96	16.03	24.01
STONEHAM	21.80	-1.21	8.10	7.89	17.15	3.41	16.13	8.63	2.37	16.38	23.69
SWAMPSCOTT	22.05	-4.79	10.42	2.09	30.22	2.37	18.93	14.25	-3.90	10.87	27.94
TAUNTON	21.56	-1.18	13.02	8.26	18.85	5.49	16.83	10.64	6.06	20.07	23.41
WAKEFIELD	23.93	0.66	15.84	4.82	15.11	-1.48	16.04	13.34	4.43	21.13	19.76
WALTHAM	24.88	-2.92	11.21	8.17	21.82	4.46	20.97	7.18	1.40	16.65	22.20
WATERTOWN	23.76	0.88	10.96	6.23	18.10	0.21	13.10	12.25	1.29	12.23	19.89
WEBSTER	27.15	2.05	8.36	3.94	17.65	-0.92	5.43	7.10	3.36	13.46	19.71
WELLESLEY	27.74	-2.42	18.07	8.96	25.78	2.66	17.64	12.46	3.23	17.91	22.73
WEST SPRINGFIELD	21.02	-1.61	7.75	8.73	18.34	4.30	16.51	10.63	1.07	11.20	15.79
WESTFIELD	23.07	-2.36	13.96	8.87	18.66	5.11	16.86	8.11	0.77	15.59	20.29
WEYMOUTH	24.26	1.13	15.69	4.69	15.48	-1.49	16.69	13.33	4.53	20.02	28.19
WINCHESTER	24.78	-0.53	10.36	9.29	18.58	5.51	15.75	9.62	0.01	15.27	22.77
WINTHROP	27.58	1.14	13.52	7.87	19.91	3.41	16.58	10.05	-0.24	14.67	18.51
WOBURN	25.41	-2.63	11.36	8.66	15.86	5.62	13.06	8.56	-0.50	21.69	32.44
WORCESTER	21.87	-1.34	13.14	7.98	15.11	1.56	14.39	12.22	1.78	15.81	19.25
WORCESTER COUNTY	23.31	-2.34	8.14	7.87	16.21	3.72	10.30	8.59	1.40	16.05	27.06

PART II:
ASSET GROWTH

As of December 31, 1996 assets of Massachusetts' Retirement Systems had a market value of \$26.19 billion. (See Figures 3 and 4.) Assets of the two state funds totalled \$17.28 billion and assets of local retirement systems totalled \$8.91 billion. State funds increased by \$2.37 billion in 1996, and local assets increased by \$1.13 billion.

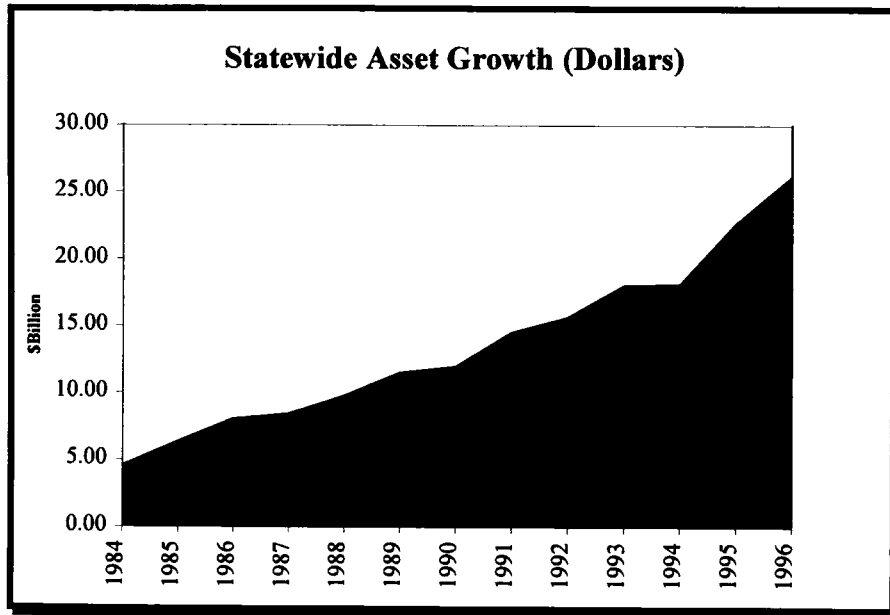


Figure 3

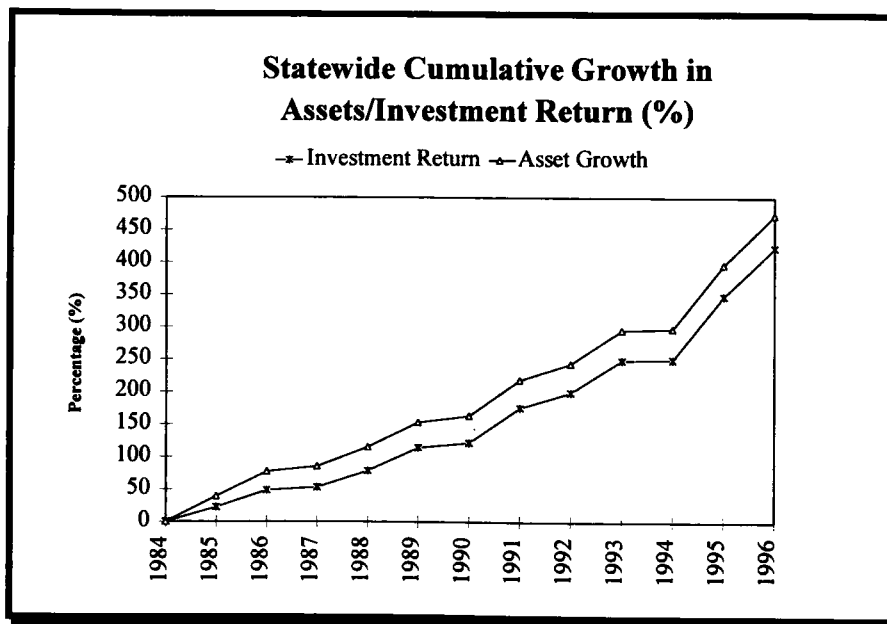


Figure 4

**Annual Report of the
Massachusetts Contributory Retirement Systems
for the year ending December 31, 1996**

Table Three

Asset Growth

Page One

<u>Retirement System</u>	<u>December 31, 1996 Total Asset Value</u>	<u>December 31, 1995 Total Asset Value</u>	<u>Change in Total Asset Value</u>	<u>Percent Change</u>
ADAMS	11,870,604.88	10,774,577.02	1,096,027.86	10.17
AMESBURY	17,337,052.34	15,554,210.35	1,782,841.99	11.46
ANDOVER	38,180,256.65	31,126,655.67	7,053,600.98	22.66
ARLINGTON	80,447,847.36	71,285,361.26	9,162,486.10	12.85
ATHOL	7,509,518.90	6,881,557.57	627,961.33	9.13
ATTLEBORO	32,081,047.15	27,998,249.29	4,082,797.86	14.58
BARNSTABLE COUNTY	189,730,257.15	158,448,944.73	31,281,312.42	19.74
BELMONT	35,095,246.33	31,252,684.44	3,842,561.89	12.30
BERKSHIRE COUNTY	47,080,312.59	42,172,129.78	4,908,182.81	11.64
BEVERLY	38,489,252.32	34,735,847.87	3,753,404.45	10.81
BLUE HILLS REG VO	4,318,958.73	4,073,892.83	245,065.90	6.02
BOSTON	2,061,902,517.33	1,776,148,026.76	285,754,490.57	16.09
BRAINTREE	59,284,748.77	53,941,134.27	5,343,614.50	9.91
BRISTOL COUNTY	143,419,842.73	125,221,806.27	18,198,036.46	14.53
BROCKTON	121,442,424.98	101,441,259.54	20,001,165.44	19.72
BROOKLINE	104,544,643.89	95,017,121.77	9,527,522.12	10.03
CAMBRIDGE	268,180,966.83	230,127,787.89	38,053,178.94	16.54
CHELSEA	29,110,879.71	26,086,499.73	3,024,379.98	11.59
CHICOPEE	71,165,916.05	64,260,647.24	6,905,268.81	10.75
CLINTON	9,307,466.22	8,197,993.80	1,109,472.42	13.53
CONCORD	37,390,390.41	33,775,567.96	3,614,822.45	10.70
DANVERS	44,780,217.31	41,295,165.32	3,485,051.99	8.44
DEDHAM	30,789,083.42	25,357,394.02	5,431,689.40	21.42
DUKES COUNTY	16,886,647.01	13,706,887.24	3,179,759.77	23.20
EASTHAMPTON	12,586,910.53	11,859,512.96	727,397.57	6.13
ESSEX COUNTY	122,450,001.32	107,569,808.38	14,880,192.94	13.83
EVERETT	43,328,499.65	38,700,783.67	4,627,715.98	11.96

<u>Retirement System</u>	<u>December 31, 1996 Total Asset Value</u>	<u>December 31, 1995 Total Asset Value</u>	<u>Change in Total Asset Value</u>	<u>Percent Change</u>
FAIRHAVEN	12,055,426.64	9,711,021.02	2,344,405.62	24.14
FALL RIVER	135,349,533.57	119,452,964.30	15,896,569.27	13.31
FALMOUTH	35,710,712.97	30,750,587.04	4,960,125.93	16.13
FITCHBURG	44,942,416.83	40,862,383.07	4,080,033.76	9.98
FRAMINGHAM	85,040,442.03	73,425,846.45	11,614,595.58	15.82
FRANKLIN COUNTY	26,389,389.42	23,812,803.85	2,576,585.57	10.82
GARDNER	18,393,698.37	14,775,122.92	3,618,575.45	24.49
GLOUCESTER	33,611,939.30	30,004,360.66	3,607,578.64	12.02
GREATER LAWRENCE	4,910,272.93	4,512,361.29	397,911.64	8.82
GREENFIELD	20,050,548.22	17,323,816.03	2,726,732.19	15.74
HAMPDEN COUNTY	118,676,003.38	104,814,928.93	13,861,074.45	13.22
HAMPSHIRE COUNTY	74,829,377.31	65,089,663.13	9,739,714.18	14.96
HAVERHILL	86,971,274.14	75,422,996.82	11,548,277.32	15.31
HINGHAM	28,937,841.06	23,060,172.13	5,877,668.93	25.49
HOLYOKE	85,065,253.34	76,485,136.31	8,580,117.03	11.22
HULL	9,475,794.03	8,386,580.31	1,089,213.72	12.99
LAWRENCE	63,275,935.91	56,149,435.17	7,126,500.74	12.69
LEOMINSTER	34,562,440.59	30,639,441.78	3,922,998.81	12.80
LEXINGTON	50,309,310.39	44,620,191.62	5,689,118.77	12.75
LOWELL	95,845,005.95	81,869,442.08	13,975,563.87	17.07
LYNN	104,716,021.38	96,240,667.85	8,475,353.53	8.81
MALDEN	57,190,958.77	50,400,161.97	6,790,796.80	13.47
MARBLEHEAD	35,789,934.40	30,608,733.40	5,181,201.00	16.93
MARLBOROUGH	32,459,588.37	28,667,439.89	3,792,148.48	13.23
MASS HOUSING FINA	27,132,657.84	23,877,407.21	3,255,250.63	13.63
MASS PORT AUTH	184,034,803.46	164,037,539.18	19,997,264.28	12.19
MASS TURNPIKE AUT	133,793,835.52	119,323,770.05	14,470,065.47	12.13

<u>Retirement System</u>	<u>December 31, 1996 Total Asset Value</u>	<u>December 31, 1995 Total Asset Value</u>	<u>Change in Total Asset Value</u>	<u>Percent Change</u>
MASS WATER RESOUR	60,571,467.01	47,657,121.65	12,914,345.36	27.10
MAYNARD	8,718,264.53	7,521,738.08	1,196,526.45	15.91
MEDFORD	69,274,113.45	61,363,817.65	7,910,295.80	12.89
MELROSE	31,118,009.70	28,000,682.31	3,117,327.39	11.13
METHUEN	42,951,789.13	36,727,065.12	6,224,724.01	16.95
MIDDLESEX COUNTY	423,820,798.84	376,204,011.79	47,616,787.05	12.66
MILFORD	27,111,254.55	23,423,366.33	3,687,888.22	15.74
MILTON	34,823,294.31	29,879,309.71	4,943,984.60	16.55
MINUTEMAN REG VO	5,041,471.08	4,281,343.09	760,127.99	17.75
MONTAGUE	7,797,169.77	6,642,660.71	1,154,509.06	17.38
NATICK	45,021,212.08	39,648,553.26	5,372,658.82	13.55
NEEDHAM	55,070,572.79	48,388,991.85	6,681,580.94	13.81
NEW BEDFORD	104,086,583.19	92,069,448.05	12,017,135.14	13.05
NEWBURYPORT	17,642,519.25	15,852,830.87	1,789,688.38	11.29
NEWTON	158,984,907.14	141,462,607.47	17,522,299.67	12.39
NORFOLK COUNTY	262,166,822.37	224,410,390.59	37,756,431.78	16.82
NORTH ADAMS	18,176,684.75	16,501,152.37	1,675,532.38	10.15
NORTH ATTLEBORO	24,430,014.53	21,004,924.01	3,425,090.52	16.31
NORTHAMPTON	25,508,983.05	22,222,632.92	3,286,350.13	14.79
NORTHBRIDGE	6,689,872.16	5,548,327.09	1,141,545.07	20.57
NORWOOD	64,131,593.06	57,424,851.08	6,706,741.98	11.68
PEABODY	60,871,234.01	55,521,499.34	5,349,734.67	9.64
PITTSFIELD	54,471,279.72	51,589,690.10	2,881,589.62	5.59
PLYMOUTH	51,665,844.23	44,756,181.97	6,909,662.26	15.44
PLYMOUTH COUNTY	265,763,988.78	225,511,330.75	40,252,658.03	17.85
PRIM BOARD	8,453,958,856.89	6,890,528,098.11	1,563,430,758.78	22.69
QUINCY	163,223,560.64	143,951,083.64	19,272,477.00	13.39

<u>Retirement System</u>	<u>December 31, 1996 Total Asset Value</u>	<u>December 31, 1995 Total Asset Value</u>	<u>Change in Total Asset Value</u>	<u>Percent Change</u>
READING	35,393,611.82	29,531,826.04	5,861,785.78	19.85
REVERE	43,360,144.32	38,226,327.90	5,133,816.42	13.43
SALEM	49,259,944.49	45,011,042.15	4,248,902.34	9.44
SAUGUS	21,850,218.75	18,562,378.58	3,287,840.17	17.71
SHREWSBURY	26,408,775.12	23,162,186.98	3,246,588.14	14.02
SOMERVILLE	83,453,628.68	74,263,594.82	9,190,033.86	12.37
SOUTHBRIDGE	10,648,708.27	8,408,816.56	2,239,891.71	26.64
SPRINGFIELD	199,551,716.42	179,884,661.93	19,667,054.49	10.93
STATE	8,534,843,824.61	7,366,059,617.24	1,168,784,207.37	15.87
STATE TEACHERS	8,750,252,950.12	7,552,530,289.44	1,197,722,660.68	15.86
STONEHAM	27,461,059.92	24,383,451.87	3,077,608.05	12.62
SWAMPSCOTT	15,954,928.13	14,284,703.49	1,670,224.64	11.69
TAUNTON	65,539,892.89	56,843,972.85	8,695,920.04	15.30
WAKEFIELD	36,183,885.68	30,454,487.65	5,729,398.03	18.81
WALTHAM	84,011,773.83	74,270,171.35	9,741,602.48	13.12
WATERTOWN	44,284,902.34	39,044,263.45	5,240,638.89	13.42
WEBSTER	8,415,164.65	7,521,465.11	893,699.54	11.88
WELLESLEY	87,109,768.60	76,219,762.56	10,890,006.04	14.29
WEST SPRINGFIELD	26,696,708.44	23,702,159.18	2,994,549.26	12.63
WESTFIELD	62,493,445.39	54,225,454.35	8,267,991.04	15.25
WEYMOUTH	55,840,528.13	46,848,867.24	8,991,660.89	19.19
WINCHESTER	36,422,400.24	32,296,480.42	4,125,919.82	12.78
WINTHROP	15,931,680.65	13,901,069.46	2,030,611.19	14.61
WOBURN	43,406,864.38	41,063,519.23	2,343,345.15	5.71
WORCESTER	227,509,425.44	201,330,539.22	26,178,886.22	13.00
WORCESTER COUNTY	194,554,433.23	169,280,633.63	25,273,799.60	14.93
MASS. RETIREMENT SYSTEMS	26,194,205,615.34	22,700,213,836.59	3,493,991,778.75	15.39

PART III:

FEES AND TURNOVER

In circumstances where direct investment authority has been delegated to an investment manager, the retirement board's duty to system members and beneficiaries is to monitor the activity of the manager and other vendors. In fulfilling that responsibility the board must act as a prudent expert would. Fees and portfolio turnover have a direct bearing on the expense of investment activities. Boards must aggressively negotiate fees and also, where appropriate, renegotiate fee schedules. The same is true with fees paid to custodians, consultants and other vendors. Under recently passed legislation these costs will be paid from system assets. Actual return on assets is reduced by the costs associated with these activities. Thus assuring that fees are reasonable can contribute to improving the financial condition of the pension system. Table Four contains the gross and net returns of the retirement systems resulting from the use of earnings to pay costs. In 1996 some systems continued to finance these costs from appropriation and thus no adjustment in return is necessary. Following the returns are the amounts paid for management advice, and custodial and consultant services. Boards should be aware of the impact of costs on real returns and keep that effect in mind when negotiating contracts with various vendors.

Similarly, boards must be aware of portfolio turnover. High rates of turnover not only increase costs but also could be a signal of a change in strategy by an investment manager. In the event such a change takes place, the board must determine whether the manager is continuing to invest the account in accordance with the terms of the contract between the manager and the board. Table Five contains turnover rates of the stock and bond portfolios of the retirement systems.

Please note:

- The administrative expenses of the PRIT Fund have been categorized as management fees.
- The Investment Committee of the State Treasurer administers the MASTERS Trust for the State Employees' and Teachers' Retirement Systems. The gross return as reported by the Office of the Treasurer was 13.00% and the net return 12.70%, a difference of 30 basis points. These returns differ from those reported for the State Employees' and Teachers' Retirement Systems because they exclude the funds invested by these retirement systems with the PRIT Fund. In addition, the MASTERS Trust pays for administrative and other operating expenses from earnings which is reflected in a lower net return for the State Employees' and Teachers' Retirement Systems than if they had not been paid from earnings.
- Many boards have investments in pooled funds, (e.g. mutual funds, commingled funds, group trusts, real estate funds, limited partnership funds, and venture capital funds). Generally these funds report their valuations and rates of return on a "net" basis after fees have been deducted. Boards are required to obtain fee information from each "net" pooled fund manager and record these fees in their monthly accounting records. Some boards have not fulfilled this requirement. This will result in an understatement of management fees as reported in Table Four and a slight understatement of the gross rate of return.

- The administrative expenses and other operating expenses of the MASTERS Trust have been categorized as management fees for the State Employees' and Teachers' Retirement Systems.
- Management fees for those retirement systems which retain BayBank as both their primary manager and custodian include custody fees.
- Information regarding expenses was derived from the records of the retirement systems, pooled fund statements, the PRIT Fund, and the Office of the Treasurer.
- With respect to the boards investing in pooled funds, the turnover data reflects the purchase and redemption of units/shares and does not reflect the buying and selling of stocks and bonds within these funds.

Statewide in 1996, the gross return was 14.17% and the net return 13.76%, a difference of 41 basis points. Statewide, \$81,372,890 was paid in management fees, \$4,192,966 was paid in custody fees, and \$3,056,530 was paid in consulting fees.

**Annual Report of the
Massachusetts Contributory Retirement Systems
for the year ending December 31, 1996**

Table Four

Gross and Net Performance / Management, Custodian Bank and Consultant Fees

Page One

<u>Retirement System</u>	<u>..... Gross and Net Performance</u>			<u>.....Management, Custodian Bank and Consultant Fees</u>			
	<u>Gross</u>	<u>Net</u>	<u>Basis Point Difference</u>	<u>Management Fees</u>	<u>Custodian Bank Fees</u>	<u>Consultant Fees</u>	<u>As a % of Market Value</u>
ADAMS	13.08	12.71	37	32,917.00	11,131.20	0.00	0.37
AMESBURY	9.58	8.99	59	58,618.55	17,635.36	12,157.20	0.51
ANDOVER	17.67	17.28	39	120,049.70	16,240.62	0.00	0.36
ARLINGTON	14.69	14.51	18	60,155.19	19,985.20	39,310.71	0.15
ATHOL	10.35	10.01	34	21,678.05	5,446.22	0.00	0.36
ATTLEBORO	13.16	12.93	23	55,594.68	0.00	17,848.27	0.23
BARNSTABLE COUNTY	13.11	12.73	38	511,632.74	20,044.00	68,391.00	0.32
BELMONT	15.13	14.41	72	170,299.30	29,298.21	12,061.59	0.60
BERKSHIRE COUNTY	9.61	9.36	25	77,952.81	22,545.42	145.68	0.21
BEVERLY	13.66	12.88	78	183,935.65	39,829.11	26,250.00	0.65
BLUE HILLS REG VO	12.09	11.16	93	16,036.00	19,180.51	0.00	0.82
BOSTON	13.31	13.02	29	4,370,908.74	444,802.79	255,831.00	0.25
BRAINTREE	9.13	8.75	38	193,407.79	29,489.15	27,000.00	0.42
BRISTOL COUNTY	11.16	10.72	44	544,653.53	0.00	0.00	0.38
BROCKTON	13.81	13.17	64	659,830.65	43,299.11	50,000.04	0.62
BROOKLINE	10.66	10.20	46	327,885.67	61,432.63	21,000.00	0.39
CAMBRIDGE	15.04	14.43	61	1,187,900.83	81,295.32	81,793.16	0.50
CHELSEA	15.47	15.23	24	52,592.23	0.00	0.00	0.18
CHICOPEE	11.17	10.69	48	285,132.48	35,033.44	0.00	0.45
CLINTON	14.71	14.37	34	21,344.14	0.00	16,925.00	0.41
CONCORD	9.93	9.50	43	137,489.17	13,014.02	545.71	0.40
DANVERS	9.48	9.48	0	144,627.03	10,000.00	0.00	0.35
DEDHAM	18.16	17.71	45	99,053.27	1,799.61	3,573.82	0.34
DUKES COUNTY	14.06	14.00	6	39,898.59	68.49	136.00	0.24
EASTHAMPTON	7.79	7.34	45	50,000.00	0.00	0.00	0.40
ESSEX COUNTY	11.76	11.36	40	347,358.00	68,998.74	38,851.40	0.37
EVERETT	16.80	16.54	26	90,288.16	0.00	0.00	0.21

Retirement System Gross and Net PerformanceManagement, Custodian Bank and Consultant Fees			
	Gross	Net	Basis Point Difference	Management Fees	Custodian Bank Fees	Consultant Fees	As a % of Market Value
FAIRHAVEN	17.70	17.27	43	37,737.58	685.62	1,361.56	0.33
FALL RIVER	12.78	12.42	36	379,423.60	34,459.86	0.00	0.31
FALMOUTH	14.35	13.77	58	170,304.38	0.00	0.00	0.48
FITCHBURG	9.96	9.94	2	71,136.75	0.00	0.00	0.16
FRAMINGHAM	16.04	15.61	43	285,902.58	1,678.76	3,333.83	0.34
FRANKLIN COUNTY	9.35	8.95	40	89,620.00	4,000.00	0.00	0.35
GARDNER	18.32	17.83	49	58,773.61	1,067.80	2,120.54	0.34
GLOUCESTER	12.04	11.48	56	136,686.75	23,215.70	34,000.00	0.58
GREATER LAWRENCE	9.44	8.81	63	27,396.49	0.00	0.00	0.56
GREENFIELD	13.22	13.14	8	86,547.62	11,709.34	12,651.29	0.55
HAMPDEN COUNTY	10.14	9.70	44	372,410.65	21,479.65	40,125.00	0.37
HAMPSHIRE COUNTY	12.12	11.88	24	118,689.24	28,020.23	0.00	0.20
HAVERHILL	16.25	15.45	80	494,407.60	37,403.28	33,750.00	0.65
HINGHAM	18.00	17.56	44	89,943.02	1,634.09	3,245.13	0.33
HOLYOKE	10.71	10.25	46	336,712.76	28,988.57	32,041.89	0.47
HULL	12.34	11.94	40	47,180.45	563.90	0.00	0.50
LAWRENCE	10.41	9.79	62	312,929.00	28,983.78	0.00	0.54
LEOMINSTER	10.95	10.95	0	41,825.00	19,886.50	19,000.08	0.23
LEXINGTON	12.07	11.82	25	87,912.50	21,126.74	0.00	0.22
LOWELL	15.68	14.95	73	468,283.13	42,634.67	40,897.95	0.58
LYNN	10.62	10.38	24	450,798.96	26,773.02	38,347.13	0.49
MALDEN	13.42	13.12	30	139,963.00	10,415.19	0.00	0.26
MARBLEHEAD	16.35	15.91	44	115,851.19	2,104.80	4,179.89	0.34
MARLBOROUGH	9.89	9.22	67	179,622.76	19,989.68	12,000.00	0.65
MASS HOUSING FINA	9.28	8.92	36	84,525.95	23,564.67	0.00	0.40
MASS PORT AUTH	11.02	10.81	21	244,062.10	50,000.04	42,857.05	0.18
MASS TURNPIKE AUT	9.77	9.15	62	556,385.25	113,585.37	57,707.00	0.54

Retirement System Gross and Net PerformanceManagement, Custodian Bank and Consultant Fees			
	Gross	Net	Basis Point Difference	Management Fees	Custodian Bank Fees	Consultant Fees	As a % of Market Value
MASS WATER RESOUR	12.26	11.33	93	444,954.16	44.88	89.13	0.73
MAYNARD	13.96	13.56	40	27,706.71	0.00	0.00	0.32
MEDFORD	12.93	12.39	54	223,749.44	50,798.93	39,465.96	0.45
MELROSE	10.75	10.47	28	72,911.33	13,110.33	0.00	0.28
METHUEN	11.11	10.88	23	138,254.00	21,933.83	33,249.20	0.45
MIDDLESEX COUNTY	13.08	12.39	69	2,293,182.25	133,002.08	128,360.00	0.60
MILFORD	14.69	14.69	0	66,043.32	0.00	0.00	0.24
MILTON	17.98	17.54	44	111,579.60	2,027.19	4,025.77	0.34
MINUTEMAN REG VO	18.00	17.56	44	16,236.71	294.99	585.82	0.34
MONTAGUE	17.97	17.53	44	24,603.61	447.00	887.69	0.33
NATICK	14.79	14.44	35	82,625.02	29,911.61	18,750.06	0.29
NEEDHAM	18.23	17.79	44	180,136.08	3,272.73	6,499.28	0.34
NEW BEDFORD	12.64	12.28	36	296,429.42	676.67	14,468.79	0.30
NEWBURYPORT	8.24	7.84	40	44,207.48	12,167.89	0.00	0.32
NEWTON	13.52	13.06	46	507,195.97	55,084.20	40,000.00	0.38
NORFOLK COUNTY	13.78	13.33	45	830,924.62	47,326.74	62,707.09	0.36
NORTH ADAMS	12.85	12.28	57	74,892.00	13,591.77	0.00	0.49
NORTH ATTLEBORO	14.55	14.20	35	69,588.66	19,369.32	16,844.28	0.43
NORTHAMPTON	12.08	11.67	41	69,059.00	16,662.45	0.00	0.34
NORTHBRIDGE	18.45	17.99	46	21,389.54	388.61	771.73	0.34
NORWOOD	15.81	15.24	57	241,740.53	37,250.49	25,630.00	0.47
PEABODY	11.17	10.71	46	206,439.37	29,888.91	0.00	0.39
PITTSFIELD	9.54	9.05	49	217,389.94	12,500.00	0.00	0.42
PLYMOUTH	12.70	12.01	69	238,367.49	57,237.93	51,265.00	0.67
PLYMOUTH COUNTY	16.37	16.00	37	551,054.89	193,557.42	50,000.00	0.30
PRIM BOARD	16.85	16.35	50	31,708,887.24	501,000.00	994,930.00	0.39
QUINCY	11.84	11.58	26	356,178.34	33,379.17	235.92	0.24

Retirement System Gross and Net PerformanceManagement, Custodian Bank and Consultant Fees			
	Gross	Net	Basis Point Difference	Management Fees	Custodian Bank Fees	Consultant Fees	As a % of Market Value
READING	18.19	17.75	44	112,299.31	2,040.26	4,051.74	0.33
REVERE	16.37	15.93	44	139,204.79	2,529.09	5,022.48	0.34
SALEM	12.11	11.39	72	223,682.26	38,211.85	35,875.00	0.60
SAUGUS	18.00	17.56	44	71,294.49	1,295.29	2,572.29	0.34
SHREWSBURY	13.44	12.70	74	132,749.24	17,601.29	16,610.94	0.63
SOMERVILLE	15.49	14.98	51	332,894.82	35,034.92	0.00	0.44
SOUTHBRIDGE	11.92	11.42	50	42,155.00	18,450.30	5,000.00	0.62
SPRINGFIELD	11.28	10.94	34	519,110.47	65,257.85	12,500.00	0.30
STATE	14.76	14.35	41	26,442,589.24	614,156.89	608,222.12	0.32
STATE TEACHERS	14.56	14.16	40	26,636,417.73	642,776.15	587,002.54	0.32
STONEHAM	11.60	10.97	63	150,481.01	24,125.70	20,708.84	0.71
SWAMPSCOTT	10.98	10.61	37	40,499.00	10,290.89	0.00	0.32
TAUNTON	12.22	11.50	72	337,526.84	32,986.27	32,051.19	0.61
WAKEFIELD	18.39	17.93	46	115,907.59	2,105.82	4,181.92	0.34
WALTHAM	15.50	15.26	24	155,033.93	0.00	0.00	0.18
WATERTOWN	13.81	13.37	44	138,000.21	8,595.00	17,840.00	0.37
WEBSTER	10.08	9.60	48	33,584.16	7,166.89	0.00	0.48
WELLESLEY	17.88	17.37	51	284,612.66	45,326.67	24,202.00	0.41
WEST SPRINGFIELD	10.28	10.03	25	49,724.67	15,817.78	0.00	0.25
WESTFIELD	13.68	13.08	60	305,206.00	58,348.95	0.00	0.58
WEYMOUTH	18.49	18.05	44	178,088.00	3,235.52	6,425.38	0.34
WINCHESTER	13.21	12.85	36	87,542.73	21,121.86	0.00	0.30
WINTHROP	12.91	12.75	16	18,844.88	90,242.96	0.00	0.68
WOBURN	9.92	9.91	1	5,074.64	36,970.34	183.09	0.10
WORCESTER	15.11	14.37	74	1,384,139.51	0.00	75,950.00	0.64
WORCESTER COUNTY	13.45	12.95	50	683,116.19	70,812.55	54,855.37	0.42

**Annual Report of the
Massachusetts Contributory Retirement Systems
for the year ending December 31, 1996**

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Portfolio Turnover

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Retirement System	Equity Turnover				Fixed Income Turnover			
	Total Purchases	% of Avg. Market Value	Total Sales	% of Avg. Market Value	Total Purchases	% of Beg. Market Value	Total Sales	% of Beg. Market Value
ADAMS	2,136,115.50	54.53	3,386,420.42	86.44	3,065,788.50	64.19	1,191,782.38	24.95
AMESBURY	3,440,196.31	47.23	2,581,727.53	35.45	23,186,183.77	272.93	22,986,160.59	270.57
ANDOVER	11,332,991.06	57.91	11,291,233.56	57.69	13,473,792.16	115.40	9,952,018.43	85.24
ARLINGTON	3,000,000.00	6.23	0.00	0.00	10,634,391.83	41.05	10,690,943.57	41.27
ATHOL	2,301,392.41	89.37	1,832,336.15	71.15	1,673,141.47	43.76	1,650,359.78	43.17
ATTLEBORO	6,941,084.54	53.54	5,788,550.70	44.65	17,600,840.95	121.05	16,705,084.63	114.89
BARNSTABLE COUNTY	51,763,208.58	54.62	43,818,978.23	46.24	145,582,534.77	234.23	130,207,705.86	209.50
BELMONT	2,955,014.21	13.97	4,832,177.84	22.84	11,022,682.11	115.33	10,954,120.46	114.62
BERKSHIRE COUNTY	19,939,742.13	111.53	20,984,960.24	117.37	22,934,690.94	97.24	19,824,948.00	84.05
BEVERLY	17,884,734.34	69.77	18,012,874.66	70.27	9,328,194.59	91.47	8,935,812.64	87.62
BLUE HILLS REG VO	360,302.50	18.75	442,847.91	23.05	1,646,142.39	79.53	1,575,337.45	76.11
BOSTON	486,898,583.13	37.62	481,205,298.51	37.18	743,596,639.48	176.74	744,105,901.53	176.86
BRAINTREE	22,645,083.15	112.57	16,733,568.02	83.19	32,967,143.83	96.15	34,626,721.40	100.99
BRISTOL COUNTY	64,286,316.57	88.57	52,206,949.01	71.93	85,251,265.77	148.53	90,679,202.63	157.99
BROCKTON	39,982,691.98	61.25	37,722,958.14	57.79	33,367,595.71	89.68	28,543,572.53	76.72
BROOKLINE	42,687,942.86	90.67	40,628,799.35	86.29	32,077,179.12	68.08	29,447,690.16	62.50
CAMBRIDGE	69,315,908.48	47.92	77,583,377.17	53.63	65,473,228.38	79.32	55,802,429.92	67.60
CHELSEA	12,393,323.41	69.98	7,438,489.87	42.00	8,156,144.52	72.72	13,051,070.31	116.37
CHICOPEE	8,080,715.90	23.75	9,725,232.23	28.58	29,492,512.64	110.07	27,378,490.36	102.18
CLINTON	7,745,107.34	93.85	7,946,891.84	96.30	0.00	0.00	0.00	0.00
CONCORD	3,737,973.16	22.75	3,337,973.16	20.32	3,847,930.96	23.44	2,359,911.85	14.38
DANVERS	9,041,835.08	44.20	6,902,482.65	33.74	50,758,396.77	221.56	51,634,997.20	225.38
DEDHAM	1,283,490.58	4.58	120,000.00	0.43	0.00	0.00	0.00	0.00
DUKES COUNTY	5,601,632.76	82.84	3,499,835.41	51.76	8,604,836.81	104.88	9,220,464.97	112.38
EASTHAMPTON	2,218,950.46	65.57	2,333,897.93	68.97	2,199,125.00	26.31	1,596,313.18	19.10
ESSEX COUNTY	32,712,892.69	56.36	35,306,135.08	60.82	41,304,919.48	103.21	34,628,916.97	86.53
EVERETT	13,544,411.57	60.37	13,124,509.43	58.50	21,118,105.93	129.04	21,459,285.20	131.13

Table Five

Portfolio Turnover

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<u>Retirement System</u>	<u>Equity Turnover</u>				<u>Fixed Income Turnover</u>			
	<u>Total</u> <u>Purchases</u>	<u>% of Avg.</u> <u>Market Value</u>	<u>Total</u> <u>Sales</u>	<u>% of Avg.</u> <u>Market Value</u>	<u>Total</u> <u>Purchases</u>	<u>% of Beg.</u> <u>Market Value</u>	<u>Total</u> <u>Sales</u>	<u>% of Beg.</u> <u>Market Value</u>
FAIRHAVEN	1,727,012.58	16.14	960,000.00	8.97	0.00	0.00	0.00	0.00
FALL RIVER	43,669,932.62	71.82	42,810,956.84	70.41	66,293,444.86	116.70	59,495,555.20	104.74
FALMOUTH	4,841,311.65	27.09	4,270,260.28	23.89	11,936,982.08	104.92	8,308,790.17	73.03
FITCHBURG	2,105,970.00	15.72	7,169,793.18	53.50	9,340,533.54	42.38	4,267,141.71	19.36
FRAMINGHAM	7,607,137.00	9.68	6,301,000.93	8.02	0.00	0.00	1,277.43	33.46
FRANKLIN COUNTY	9,793,302.79	87.86	8,494,935.35	76.21	12,691,866.41	105.59	11,773,252.03	97.95
GARDNER	3,490,630.19	21.05	2,332,340.50	14.06	0.00	0.00	0.00	0.00
GLOUCESTER	12,783,256.62	68.45	13,369,072.71	71.58	10,985,325.40	92.81	10,006,809.35	84.54
GREATER LAWRENCE	788,564.02	35.93	887,554.12	40.44	850,632.96	39.00	495,353.21	22.71
GREENFIELD	3,719,262.79	45.27	3,607,971.37	43.92	7,269,146.32	82.09	6,648,423.70	75.08
HAMPDEN COUNTY	85,483,905.39	123.82	66,602,986.40	96.48	44,669,425.81	98.72	57,263,856.57	126.55
HAMPSHIRE COUNTY	18,828,842.02	45.38	15,037,845.55	36.24	17,807,043.24	81.79	14,752,615.20	67.76
HAVERHILL	50,498,337.41	83.58	48,448,934.03	80.19	21,290,276.29	117.21	20,947,070.72	115.32
HINGHAM	1,067,686.74	4.23	0.00	0.00	0.00	0.00	0.00	0.00
HOLYOKE	33,931,600.59	81.73	35,052,530.99	84.43	34,392,143.77	98.64	31,908,356.10	91.52
HULL	1,969,210.84	34.42	1,626,496.34	28.43	2,234,178.06	122.12	2,166,703.25	118.43
LAWRENCE	37,932,125.56	118.07	37,822,297.43	117.73	64,573,936.37	253.09	62,954,632.84	246.75
LEOMINSTER	2,500,794.58	20.69	4,944,800.57	40.91	6,341,307.50	38.56	3,986,472.97	24.24
LEXINGTON	10,677,392.41	37.24	10,677,392.41	37.24	11,727,666.18	66.56	9,848,148.96	55.90
LOWELL	59,809,114.60	85.80	56,823,700.98	81.52	12,948,810.18	83.03	12,580,947.92	80.67
LYNN	30,499,222.23	57.65	25,205,752.64	47.64	18,680,437.39	41.04	23,429,576.07	51.47
MALDEN	18,509,144.54	63.58	15,703,248.19	53.94	10,723,262.49	45.28	11,228,216.30	47.41
MARBLEHEAD	1,940,000.00	5.84	1,582,000.00	4.76	0.00	0.00	0.00	0.00
MARLBOROUGH	5,816,224.77	40.03	5,339,008.68	36.75	18,005,704.64	132.77	15,413,234.81	113.65
MASS HOUSING FINA	8,252,967.57	80.29	7,779,277.11	75.68	8,228,896.14	60.33	7,517,716.62	55.12
MASS PORT AUTH	22,113,849.40	26.95	20,314,053.98	24.76	32,588,348.75	39.28	24,453,367.61	29.48
MASS TURNPIKE AUT	106,572,601.05	213.96	76,430,243.50	153.45	36,830,417.96	52.05	53,994,877.48	76.30

Retirement System Equity Turnover Fixed Income Turnover			
	Total Purchases	% of Avg. Market Value	Total Sales	% of Avg. Market Value	Total Purchases	% of Beg. Market Value	Total Sales	% of Beg. Market Value
MASS WATER RESOUR	2,340,334.52	7.51	1,746,697.10	5.61	20,318,996.31	122.91	15,432,766.27	93.35
MAYNARD	1,923,947.92	54.99	1,842,371.74	52.66	5,113,164.16	133.28	4,465,218.40	116.39
MEDFORD	15,512,049.68	48.80	15,255,246.41	47.99	9,999,290.39	35.13	7,904,638.49	27.77
MELROSE	5,067,962.26	38.40	4,739,762.43	35.92	7,344,274.14	61.94	4,555,267.06	38.42
METHUEN	5,285,645.00	29.16	3,873,076.38	21.37	14,154,243.37	76.33	11,210,171.39	60.46
MIDDLESEX COUNTY	94,067,905.79	35.14	87,775,220.03	32.79	116,387,475.86	95.58	108,981,743.10	89.50
MILFORD	7,906,959.52	76.09	6,123,479.21	58.92	15,155,062.80	106.97	15,293,665.96	107.95
MILTON	3,864,617.01	11.95	3,525,000.00	10.90	0.00	0.00	0.00	0.00
MINUTEMAN REG VO	66,113.58	1.45	0.00	0.00	0.00	0.00	0.00	0.00
MONTAGUE	805,150.87	11.16	670,000.00	9.29	0.00	0.00	0.00	0.00
NATICK	12,563,431.00	30.30	11,943,055.99	28.80	0.00	0.00	0.00	0.00
NEEDHAM	4,985,605.00	9.75	6,000,040.00	11.73	0.00	0.00	0.00	0.00
NEW BEDFORD	24,306,854.89	54.20	24,086,064.41	53.71	86,503,269.43	183.07	87,391,115.30	184.95
NEWBURYPORT	4,304,199.81	58.50	2,487,167.90	33.80	25,007,637.99	267.58	25,512,925.56	272.99
NEWTON	72,439,540.63	69.16	55,923,753.13	53.39	28,692,486.41	64.16	41,144,192.04	92.00
NORFOLK COUNTY	54,122,035.95	30.49	46,681,641.03	26.29	56,414,016.42	121.32	39,689,437.04	85.35
NORTH ADAMS	7,315,880.92	75.24	6,369,671.37	65.51	3,652,628.90	47.00	4,442,267.48	57.16
NORTH ATTLEBORO	3,156,339.98	27.74	2,905,044.96	25.53	5,218,794.73	53.49	5,060,471.45	51.87
NORTHAMPTON	9,307,171.50	74.83	7,346,049.67	59.06	5,541,645.30	47.38	5,986,021.90	51.18
NORTHBRIDGE	1,019,892.77	16.66	800,097.49	13.07	0.00	0.00	0.00	0.00
NORWOOD	23,819,616.08	66.83	23,837,417.98	66.88	10,878,573.46	48.56	9,825,535.02	43.86
PEABODY	23,096,105.59	78.69	24,462,745.41	83.34	25,581,087.75	98.91	22,820,741.59	88.23
PITTSFIELD	16,502,029.53	80.30	16,043,939.96	78.07	26,893,524.56	94.22	26,461,459.60	92.71
PLYMOUTH	24,605,285.21	76.09	21,164,454.35	65.45	17,209,096.80	116.75	17,582,163.49	119.28
PLYMOUTH COUNTY	40,437,210.18	26.93	59,017,246.68	39.30	21,942,642.50	38.87	11,655,462.26	20.65
PRIM BOARD	3,412,405,468.11	59.70	2,872,630,590.85	50.26	4,897,704,450.04	290.16	4,532,419,196.17	268.52
QUINCY	72,277,899.74	72.55	44,554,531.94	44.72	117,788,434.24	197.23	141,967,962.20	237.71

<u>Retirement System</u>	<u>Equity Turnover</u>				<u>Fixed Income Turnover</u>			
	<u>Total</u> <u>Purchases</u>	<u>% of Avg.</u> <u>Market Value</u>	<u>Total</u> <u>Sales</u>	<u>% of Avg.</u> <u>Market Value</u>	<u>Total</u> <u>Purchases</u>	<u>% of Beg.</u> <u>Market Value</u>	<u>Total</u> <u>Sales</u>	<u>% of Beg.</u> <u>Market Value</u>
READING	2,357,865.83	7.27	1,214,000.00	3.74	0.00	0.00	0.00	0.00
REVERE	1,250,000.00	3.15	1,980,000.00	4.99	25,000.00	0.00	0.00	0.00
SALEM	11,503,703.78	49.94	14,013,599.53	60.84	21,536,082.56	102.16	19,165,021.76	90.91
SAUGUS	2,792,245.02	13.87	2,400,193.90	11.92	0.00	0.00	0.00	0.00
SHREWSBURY	10,859,923.33	75.76	9,753,959.56	68.04	7,081,795.41	75.85	6,640,647.50	71.12
SOMERVILLE	36,851,717.35	70.96	30,790,325.86	59.29	16,542,036.71	122.37	16,098,282.63	119.09
SOUTHBRIDGE	3,816,577.42	77.45	3,352,720.55	68.04	4,302,808.37	117.72	3,160,897.89	86.48
SPRINGFIELD	37,256,639.29	54.75	37,089,948.16	54.50	92,164,948.74	95.06	77,761,295.82	80.21
STATE	440,435,147.59	5.55	184,404,292.50	2.32	0.00	0.00	0.00	0.00
STATE TEACHERS	430,013,536.74	5.31	177,422,618.54	2.19	0.00	0.00	0.00	0.00
STONEHAM	7,303,982.60	58.90	6,935,662.96	55.93	9,297,807.94	77.53	8,112,437.02	67.64
SWAMPSCOTT	7,839,873.86	93.96	5,707,530.52	68.40	9,709,382.59	144.61	11,822,759.81	176.08
TAUNTON	25,672,881.19	63.72	24,251,606.56	60.19	14,708,664.72	75.59	13,102,861.09	67.34
WAKEFIELD	3,138,910.08	9.47	2,630,000.00	7.93	0.00	0.00	0.00	0.00
WALTHAM	22,740,691.65	57.88	22,246,241.90	56.62	44,216,021.99	118.99	42,525,488.42	114.44
WATERTOWN	11,225,497.23	49.21	9,694,944.93	42.50	18,702,420.37	108.60	19,114,058.24	110.99
WEBSTER	3,464,031.80	82.53	3,399,013.22	80.98	683,331.34	19.41	717,545.31	20.38
WELLESLEY	53,852,615.38	90.11	52,025,604.74	87.05	25,450,123.88	120.40	26,107,917.95	123.51
WEST SPRINGFIELD	3,417,391.86	35.05	4,199,673.00	43.08	11,051,383.41	103.61	6,362,527.76	59.65
WESTFIELD	25,192,563.52	88.29	24,820,282.97	86.99	25,283,546.15	105.88	22,405,865.09	93.83
WEYMOUTH	6,720,862.32	13.14	5,500,000.00	10.76	0.00	0.00	0.00	0.00
WINCHESTER	11,252,094.12	60.82	12,109,894.79	65.46	11,310,408.70	77.43	10,269,269.82	70.30
WINTHROP	902,966.30	12.11	1,603,519.28	21.51	5,011,670.20	86.72	3,283,491.41	56.82
WOBURN	18,036,555.80	96.58	16,118,737.14	86.31	13,077,625.43	56.29	13,512,615.66	58.16
WORCESTER	76,236,116.36	53.12	78,432,900.96	54.65	43,737,053.04	71.75	40,268,925.25	66.06
WORCESTER COUNTY	40,081,528.21	35.96	38,951,833.40	34.95	44,984,566.27	75.14	42,211,846.16	70.51

PART IV:

INVESTMENT MANAGERS, CONSULTANTS, AND CUSTODIAN BANKS

Chapter 32 and traditional trust law establishes a fiduciary duty for Board members and other parties involved in the management of our retirement systems. In the area of investment activity and in particular vendor selection, that duty sets certain standards which these individuals must meet. One of the most obvious of these standards relates to decision makers having some interest in the success or failure of a vendor seeking to do business with the Board. Fiduciaries must be disinterested and must act only with the members and beneficiaries in mind.

In many respects compliance with fiduciary duty is simply a matter of common sense. In the context of vendor selection it is also important that any individual or firm assisting the Board avoid conflict of interest. Furthermore after a vendor is selected it must act only in the interest of the Board. For all these reasons common sense dictates that parties involved in or potentially involved in providing services to Boards disclose any circumstances which might give rise to such conflicts. Clearly a request for such a disclosure by the Board is the minimum required of a fiduciary.

The information that follows lists those firms which provide management, consulting and custodian services to Boards. This information was taken from records on file at PERAC and has been confirmed by the individual Boards.

The selection and evaluation of competing firms has had an increasing impact on the investment performance of the retirement systems. This is particularly true as Boards now rely on consultants to assist in the development of asset allocation strategy as well as managers to carry out that strategy. Thus the duty to act prudently in the selection and monitoring of vendors becomes a determining factor in the results achieved.

The following is a list of each retirement system and the investment manager with the corresponding waiver approval date, consultant, and custodian retained by each retirement system as of December 31, 1996.

WAIVER/PRIT DATE

ADAMS RETIREMENT SYSTEM

Taylor Investments

5-25-89

Custodian: BayBank

AMESBURY RETIREMENT SYSTEM

Boston Financial Management, Inc.

Bank of Ireland Group Trust SAF International Equity Sub Trust

4-17-85

9-8-93

Consultant: The Hannah Consulting Group, Inc.

Custodian: State Street

ANDOVER RETIREMENT SYSTEM

Harbor Capital Management

12-31-93

Custodian: State Street

ARLINGTON RETIREMENT SYSTEM

Fleet Investment Advisors

State Street Bank and Trust

State Street Global Advisors International Index Fund

Flagship S&P 500 Index Fund

3-5-85

2-6-92

2-15-95

2-15-95

Consultant: Wilshire Associates

Custodian: State Street

ATHOL RETIREMENT SYSTEM

Fleet Investment Advisors

6-25-85

Custodian: Fleet Bank

ATTLEBORO RETIREMENT SYSTEM

BayBanks Investment Management, Inc.

PaineWebber Equity II Fund

BayBank Small Cap Fund

World Asset Management S&P 500 Fund

4-1-85

12-22-88

5-4-95

12-21-95

Consultant: Segal Advisors

Custodian: BayBank

WAIVER/PRIT DATE

BARNSTABLE COUNTY RETIREMENT SYSTEM

Allegis Realty Investors LLC
U.S. Trust Company
Putnam Advisory Company
Thompson, Siegel & Walmsley
Columbus Circle Investors
Bank of Ireland Asset Management

7-27-89
4-24-92
9-30-93
9-30-93
10-10-96
10-10-96

Consultant: William M. Mercer
Custodian: State Street

BELMONT RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund
Oppenheimer Capital
Putnam World Income Trust
Putnam International Trust

5-24-89
6-30-89
11-19-92
11-19-92

Consultant: New England Pension Consultants
Custodian: BayBank

BERKSHIRE COUNTY RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund
Freedom Capital Management Corporation

2-23-87
7-7-93

Custodian: Bank of Boston

BEVERLY RETIREMENT SYSTEM

Allegis Realty Investors LLC
PanAgora Investment Series Asset Allocation
Income Research & Management
Putnam World Income Trust
Bank of Ireland Group Trust SAF International Equity Sub Trust
Loomis Sayles & Company

8-31-89
6-24-92
1-21-93
7-21-94
7-21-94
3-28-96

Consultant: New England Pension Consultants
Custodian: State Street

BLUE HILLS REG. SCHOOL RETIREMENT SYSTEM

David L. Babson

4-12-85

Custodian: Bank of Boston

BOSTON RETIREMENT SYSTEM

Wellington Management Company	2-21-85
Liberty Asset Management	11-14-86
PanAgora Asset Management	11-14-86
Bear Stearns Asset Management	2-4-87
Oechsle International Advisors	6-30-87
Acacia/PCA Realty Advisors	8-11-87
LaSalle Advisors	8-11-87
INVESCO Realty Advisors	8-11-87
Frank Russell Trust Company	8-11-87
Public Storage Institutional Fund II	8-11-87
Copley Partners I & II	8-11-87
State Street Bank and Trust	12-12-88
Massachusetts Financial Services	9-7-89
Richmond Capital Management	9-7-89
Back Bay Advisors	9-7-89
Metric Institutional Realty Advisors	9-7-89
Heitman Advisory Corporation	11-17-89
MIG Realty Advisors	12-19-89
Shurgard Institutional Fund L.P. II	5-11-90
T. H. Lee Equity Partners, L.P.	5-11-90
BEA Associates, Inc.	4-25-91
Schroder Real Estate Value Enhancement Fund B L.P.	5-5-92
New England Growth Fund I, L.P.	7-16-92
RhumbLine Group Trust	5-25-93
Zevenbergen Capital	5-25-93
Chancellor Capital Management	1-27-94
Templeton Investment Counsel	11-17-94
Strategic Fixed Income, L.P.	8-10-95
Essex Investment Management Company	8-8-96
The Boston Company	8-8-96
INVESCO Realty Advisors	10-3-96
New England Growth Fund II	12-17-96

Consultant: Callan Associates, Inc.

Custodian: State Street

WAIVER/PRIT DATE

BRAINTREE RETIREMENT SYSTEM

1838 Investment Advisors
Boston Company International Fund
Metric Apartment Co-Investment Trust Fund (MAC Trust)
Flagship S&P 500 Index Fund

9-9-86
12-28-95
12-28-95
2-9-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: State Street

BRISTOL COUNTY RETIREMENT SYSTEM

Palmer Organization III L.P.
Allegis Realty Investors LLC
BayBanks Investment Management, Inc.
Charles River Partnership VII
Metric Apartment Co-Investment Trust Fund (MAC Trust)
Freedom Capital Management Corporation
The Boston Company Small Cap Value Fund
Amerindo Investment Advisors, Inc.
New England Growth Fund II, L.P.
Freedom Capital Management Corporation
Income Research & Management
UNC Capital, L.P.
Warburg Pincus Counsellors, Inc.
State Street Bond Market Index Fund
Hancock ForesTree IV, L.P.
Irish Life International Equity Product

5-20-87
2-23-89
7-5-89
9-29-94
9-29-94
7-27-95
9-19-96
9-26-96
9-26-96
10-3-96
10-24-96
11-6-96
11-6-96
12-2-96
12-13-96
12-18-96

Consultant: Dahab Associates
Custodian: BayBank

BROCKTON RETIREMENT SYSTEM

Loomis Sayles & Company
Freedom Capital Management Corporation
L&B Real Estate Counsel IV
Bank of Ireland Group Trust SAF International Equity Sub Trust
Boston Capital Ventures II
Alliance Capital Management
Boston Capital Ventures III
Delaware International Global Fixed Income Portfolio
Pioneer Ventures, L.P. II

6-7-89
6-7-89
5-11-90
6-15-90
11-26-91
3-24-93
12-15-94
1-12-95
3-1-95

BROCKTON RETIREMENT SYSTEM (continued)

Metric Apartment Co-Investment Trust Fund (MAC Trust)

12-7-95

Consultant: The Hannah Consulting Group, Inc.

Custodian: Mellon Trust

BROOKLINE RETIREMENT SYSTEM

State Street Research & Management Company

State Street Research & Management Company - International

Pension Reserves Investment Trust (PRIT) Fund

Loomis Sayles & Company

Guinness Flight International Equity Group Trust

6-26-86

8-24-89

9-30-89

1-28-93

3-7-96

Consultant: Wyatt Investment Consulting, Inc.

Custodian: State Street

CAMBRIDGE RETIREMENT SYSTEM

Freedom Capital Management Corporation

Allegis Congregate Care Fund

Wellington Management Company

State Street Research & Management Company

Bank of Ireland Group Trust SAF International Equity Sub Trust

Fleet Investment Advisors

Charles River Partnership VII

Pioneer Ventures, L.P. II

Income Research & Management

Flagship S&P 500 Index Fund

State Street Russell 1000 Growth Fund

Putnam Core Growth Equity Management

11-9-90

11-9-90

11-9-90

11-9-90

11-9-90

7-16-93

1-30-95

1-30-95

6-21-95

3-7-96

3-7-96

10-3-96

Consultant: Segal Advisors

Custodian: State Street

CHELSEA RETIREMENT SYSTEM

BayBanks Investment Management, Inc.

EuroPacific Growth Fund

BayBank Small Cap Fund

Massachusetts Financial Services Bond Fund -A

8-24-89

7-21-94

4-13-95

2-8-96

Custodian: BayBank

WAIVER/PRIT DATE

CHICOPEE RETIREMENT SYSTEM

Freedom Capital Management Corporation
Leonard Management Group
State Street Research & Management Company
MetLife/State Street Research Capital Appreciation #43
MassMutual Participation Investors
Metric Institutional Apartment Fund II
MetLife/State Street Research Small Cap Fund #96
MetLife/State Street Research Growth Equity #40
Scottish Equitable Invest. Mgmt. Ltd Pooled Trust-Int'l Equity Inv Fund

6-26-86
3-21-88
11-24-89
11-27-91
11-27-91
2-18-92
11-2-95
11-2-95
12-14-95

Custodian: BayBank

CLINTON RETIREMENT SYSTEM

Alliance Government Reserves Fund
Pimco Low Duration Fund
Pimco Total Return Fund
Neuberger & Berman Guardian Fund
Janus Fund
Mutual Series Beacon Fund
20th Century Ultra Fund
Templeton Foreign Fund
Cash Management Trust
Fundamental Investors Fund
Investment Company of America Fund
Washington Mutual Investors Fund

6-30-94
7-7-94
7-7-94
7-7-94
7-7-94
7-21-94
7-21-94
7-21-94
10-19-95
10-19-95
10-19-95
10-19-95

Consultant: Trust Advisory Group

CONCORD RETIREMENT SYSTEM

Fleet Investment Advisors
Frank Russell Equity I Fund
Pension Reserves Investment Trust (PRIT) Fund
Frank Russell Tactical Asset Fund
Galaxy Fund
Frank Russell Equity II Fund
Frank Russell International Fund

5-21-86
5-21-86
6-1-90
11-22-95
12-28-95
1-25-96
1-25-96

Custodian: Fleet Bank

WAIVER/PRIT DATE

DANVERS RETIREMENT SYSTEM

Boston Financial Management, Inc.

4-3-85

Custodian: State Street

DEDHAM RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

6-30-88

DUKES COUNTY RETIREMENT SYSTEM

Allegis Realty Investors LLC

BayBanks Investment Management, Inc.

Pension Reserves Investment Trust (PRIT) Fund

3-7-91

5-12-92

1-4-96

Consultant: Dahab Associates

Custodian: BayBank

EASTHAMPTON RETIREMENT SYSTEM

Wright Investors' Service

10-13-93

Custodian: Investors Bank & Trust/Greenfield Savings Bank

ESSEX COUNTY RETIREMENT SYSTEM

Freedom Capital Management Corporation

State Street Research & Management Company

Bank of Ireland Group Trust SAF International Equity Sub Trust

David L. Babson

L&B 90's Investment Program

MetLife Tower Fund

5-6-85

1-4-90

2-10-94

3-10-94

10-19-95

10-19-95

Consultant: Segal Advisors

Custodian: BayBank

EVERETT RETIREMENT SYSTEM

BayBanks Investment Management, Inc.

New England Growth Fund I, L.P.

BayBank Small Cap Fund

New England Growth Fund II, L.P.

2-15-85

6-30-93

4-26-95

11-9-95

Custodian: BayBank

FAIRHAVEN RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-86

WAIVER/PRIT DATE

FALL RIVER RETIREMENT SYSTEM

BayBanks Investment Management, Inc.
BayBank Small Cap Fund
Freedom Capital Management Corporation
State Street Daily Active Developed Markets Fund

8-27-85
4-26-95
4-26-95
8-22-96

Custodian: BayBank

FALMOUTH RETIREMENT SYSTEM

Bear Stearns Asset Management

10-19-95

Consultant: The Hannah Consulting Group, Inc.

Custodian: State Street

FITCHBURG RETIREMENT SYSTEM

Safety Fund National Bank

4-19-85

Custodian: Safety Fund National Bank

FRAMINGHAM RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund
State Street Growth Equity Fund #40
MetLife Broad Market Fund #41
GFM International Investment Bond Fund #64
MetLife/State Street Research Small Cap Fd #96
Allmerica Asset Management Core Fixed Income Fund

11-28-86
10-17-90
10-17-90
10-9-91
12-28-95
12-28-95

FRANKLIN COUNTY RETIREMENT SYSTEM

Freedom Capital Management Corporation
Metropolitan Life Market Plus #110

3-31-88
4-24-92

Custodian: State Street

GARDNER RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

12-1-86

GLOUCESTER RETIREMENT SYSTEM

Freedom Capital Management Corporation
Miller Anderson & Sherrerd
INVESCO Trust ADR International Equity Management Fund

4-19-85
7-27-95
1-11-96

Consultant: New England Pension Consultants

Custodian: BayBank

WAIVER/PRIT DATE

GREATER LAWRENCE SAN. DIST. RETIREMENT SYSTEM

Beacon Fiduciary Advisors, Inc.

5-23-90

Custodian: Brown Brothers Harriman

GREENFIELD RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

PaineWebber Equity III Fund

Harbor Capital Management

Babson-Stewart Ivory International Fund L.P. III

2-25-87

4-17-89

3-14-91

9-30-93

Consultant: The Hannah Consulting Group, Inc.

Custodian: State Street

HAMPDEN COUNTY RETIREMENT SYSTEM

Freedom Capital Management Corporation

Wellington Management Strategic Total Return Collective Inv. Fund

Brandes International Equity Trust

Dreyfus Investment Advisors

Fidelity Real Estate High Income Fund II

Fidelity Real Estate Asset Management II, L.P.

10-13-88

5-8-91

8-8-96

9-12-96

10-29-96

10-29-96

Consultant: Segal Advisors

Custodian: BayBank

HAMPSHIRE COUNTY RETIREMENT SYSTEM

Bank of Ireland Group Trust SAF International Equity Sub Trust

L&B Real Estate Counsel Fund IV

Shurgard Institutional Fund L.P. II

RhumbLine Group Trust

Sentinel Realty Partners II

Freedom Capital Management Corporation

Van Kampen Merritt Management, Inc.

John Hancock Special Equity Fund

12-12-90

1-29-91

1-29-92

2-25-92

6-3-93

12-22-94

12-22-94

8-8-96

Consultant: Dahab Associates

Custodian: State Street

WAIVER/PRIT DATE

HAVERHILL RETIREMENT SYSTEM

L&B Real Estate Counsel Fund III	10-27-88
New England Growth Fund I, L.P.	1-21-92
Babson-Stewart Ivory International Fund L.P. III	1-21-92
Commonwealth BioVentures Fund IV	1-21-92
L&B Real Estate Counsel Fund IV	1-21-92
Metric Apartment Co-Investment Trust Fund (MAC Trust)	7-29-93
Bank of Ireland Group Trust SAF International Equity Sub Trust	8-5-93
North Bridge Venture Partners	3-24-94
RII Timberland III L.L.C.	6-21-95
Hutchens Investment Management	8-3-95
Alliance Capital Management	10-5-95
IDS Advisory Group	12-21-95
Hambro Northern Ireland Venture Partners	12-28-95
Standard Asset Group	12-28-95
Cutler & Company, Inc.	1-25-96
Montgomery Institutional Series: Emerging Markets Portfolio	3-7-96
Metric Growth & Income Fund	5-30-96
Redwood Capital Partners, II	7-25-96
RII Weyerhaeuser World Timberfund L.P.	10-17-96

Consultant: Legg Mason Consulting Group

Custodian: BayBank

HINGHAM RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund	7-1-90
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HOLYOKE RETIREMENT SYSTEM

Freedom Capital Management Corporation	12-6-85
Wellington International Stock Fund	6-14-95
Dreyfus Investment Advisors	8-29-96
Fidelity Real Estate Asset Management II, L.P.	10-24-96
Fidelity Real Estate High Income Fund II	10-24-96

Consultant: Segal Advisors

Custodian: Baybank

WAIVER/PRIT DATE

HULL RETIREMENT SYSTEM

Strategic Active Management Bond Fund
Strategic Active Management Stock Fund
Matrix Equity Commingled Fund
Freedom Capital Management Corporation

12-28-95
12-28-95
12-28-95
2-8-96

Custodian: State Street

LAWRENCE RETIREMENT SYSTEM

National Investment Services of America

1-24-86

Custodian: BayBank

LEOMINSTER RETIREMENT SYSTEM

Safety Fund National Bank

4-1-85

Consultant: The Hannah Consulting Group, Inc.

Custodian: Safety Fund National Bank

LEXINGTON RETIREMENT SYSTEM

Wellington Management Company
Fidelity Capital Appreciation Fund
Fidelity Contra Fund
Fidelity Magellen Fund
Fidelity Value Fund
Fidelity Fund
Fidelity Mid-Cap Portfolio
Fidelity Growth & Income Fund
Fidelity Equity Income Fund

1-25-89
3-31-94
3-31-94
3-31-94
3-31-94
3-31-94
9-19-96
9-19-96
9-19-96

Custodian: BayBank

LOWELL RETIREMENT SYSTEM

Fleet Investment Advisors
Metric Apartment Co-Investment Trust Fund (MAC Trust)
Charles River Partnership VI-A
Heitman Real Estate Fund V
L&B Real Estate Counsel Fund IV
New England Growth Fund I, L.P.
Bank of Ireland Group Trust SAF International Equity Sub Trust
L&B Real Estate Counsel Fund V
Harbor Capital Management
Metric Apartment Co-Investment Trust Fund (MAC Trust)

9-14-89
2-8-90
5-2-91
1-14-92
1-14-92
2-19-92
8-5-93
2-3-94
2-3-94
2-3-94

LOWELL RETIREMENT SYSTEM (continued)

Federated Short Term Income Fund
 Charles River Partnership VII
 Brandywine Group Trust Fund
 Freedom Capital Management Corporation
 Pioneer Ventures, L.P. II
 QCI Asset Management
 Reservoir Capital Management
 North Atlantic Venture Fund II
 Cutler & Company LLC
 Metric Growth & Income Fund

12-15-94
 12-15-94
 5-4-95
 7-27-95
 11-9-95
 11-9-95
 12-7-95
 12-7-95
 8-15-96
 8-15-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: BayBank

LYNN RETIREMENT SYSTEM

de Burlo Group
 Palmer Organization III L.P.
 MetLife Tower Fund
 J&W Seligman & Company, Inc.
 Investment Advisers, Inc.
 Freedom Capital Management Corporation
 Smith Barney International Equity Collective Trust

3-26-85
 5-20-87
 6-21-95
 6-21-95
 6-21-95
 6-21-95
 6-21-95

Consultant: Segal Advisors
Custodian: BayBank

MALDEN RETIREMENT SYSTEM

de Burlo Group

3-27-85

Custodian: State Street

MARBLEHEAD RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

2-1-94

MARLBOROUGH RETIREMENT SYSTEM

Freedom Capital Management Corporation
 Putnam International Trust
 Metric Apartment Co-Investment Trust Fund (MAC Trust)
 L&B 90's Investment Program
 Investment Advisers, Inc.

6-23-88
 1-27-94
 1-12-95
 4-19-95
 9-28-95

Consultant: The Hannah Consulting Group, Inc.
Custodian: BayBank

WAIVER/PRIT DATE

MASS. HOUSING FINANCE AUTHORITY RETIREMENT SYSTEM

Freedom Capital Management Corporation
Van Kampen Merritt Management, Inc.
Pioneer Ventures, L.P. II

3-30-93
3-30-93
3-14-96

Custodian: BayBank

MASS. PORT AUTHORITY RETIREMENT SYSTEM

Wellington Management Company
Copley Partners I & II
Wellington Trust Company International Stock Portfolio
Wellington Mid Cap Portfolio
Wellington Small Cap Portfolio

2-7-85
10-22-86
11-24-89
11-9-95
11-9-95

Consultant: The Hannah Consulting Group, Inc.

Custodian: State Street

MASS. TURNPIKE AUTHORITY RETIREMENT SYSTEM

PanAgora U.S. Equity Market Group Trust
PanAgora Bond Index Fund
Wellington Management Company
Freedom Capital Management Corporation
Oppenheimer Capital
Reservoir Capital Management
Bank of Ireland Group Trust SAF International Equity Sub Trust

4-4-94
4-4-94
4-4-94
2-6-95
11-2-95
12-28-95
5-9-96

Consultant: New England Pension Consultants

Custodian: State Street

MASS. WATER RESOURCE AUTHORITY RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund
Bank of Ireland Group Trust SAF International Equity Sub Trust
Putnam Core Growth Equity Fund
L&B 90's Investment Program
Metric Apartment Co-Investment Trust Fund (MAC Trust)
Equitable Real Estate Prime Property Fund
MIG Residential REIT Fund
INVESCO, Inc.
Dillon Read Venture Partners III
Pioneer Ventures, L.P. II
Brandywine International Value Equity Fund
Boston Capital Ventures III

2-1-88
6-10-93
6-10-93
4-19-95
4-19-95
4-19-95
5-26-95
8-3-95
10-12-95
9-7-95
9-7-95
9-7-95

WAIVER/PRIT DATE

**MASS. WATER RESOURCE AUTHORITY RETIREMENT SYSTEM
(continued)**

Loomis Sayles & Company, L.P.
RhumbLine S&P 500 Index Fund
Boston Partners Asset Management, L.P.

11-22-96
11-22-96
11-22-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: Bank of Boston

MAYNARD RETIREMENT SYSTEM

BayBanks Investment Management, Inc.
BayBank Small Cap Fund

12-4-91
4-19-95

Custodian: BayBank

MEDFORD RETIREMENT SYSTEM

Fleet Investment Advisors
L&B Real Estate Fund IV
Connecticut Investment Management, Inc.
Loomis Sayles & Company
Glickenhau & Company
Metric Apartment Co-Investment Trust Fund (MAC Trust)
RhumbLine Advisers
MIG Residential REIT Fund
INVESCO ADR Fund
SAFECO International Stock Fund

3-14-85
3-12-90
8-14-91
7-7-94
7-7-94
1-12-95
7-3-95
7-26-95
9-19-96
10-24-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: State Street

MELROSE RETIREMENT SYSTEM

Fleet Investment Advisors
EuroPacific Growth Fund

4-3-85
3-25-92

Custodian: Fleet Bank

METHUEN RETIREMENT SYSTEM

David L. Babson
Brandes International Equity Trust

10-16-86
9-19-96

Consultant: Segal Advisors
Custodian: Fleet Bank

MIDDLESEX COUNTY RETIREMENT SYSTEM

Fleet Investment Advisors	3-26-85
Oppenheimer Capital	8-25-87
Income Research & Management	9-28-89
INVESCO, Inc.	9-28-89
L&B Real Estate Fund IV	2-1-90
Metric Institutional Apartment Fund I	2-1-90
MetLife Tower Fund	2-1-90
Bank of Ireland Group Trust SAF International Equity Sub Trust	1-10-91
Alliance Capital Management	1-10-91
Commonwealth BioVentures Fund III	3-27-91
Charles River Partnership VI-A	4-10-91
New England Growth Fund I, L.P.	2-18-92
Metric Institutional Apartment Fund II	2-18-92
Rice Mezzanine Lenders III, L.P.	2-18-92
Equitable Real Estate Value Enhancement Fund	12-10-92
Loomis Sayles & Company	12-10-92
Van Kampen Merritt Management, Inc.	12-10-92
Diversified Investment Advisors	3-3-93
Putnam International Trust	4-8-93
Merrill Lynch Asset Management	4-8-93
Harbor Capital Management	7-16-93
J&W Seligman & Company, Inc.	12-2-93
Metric Apartment Co-Investment Trust Fund (MAC Trust)	12-9-93
Corcoran Jennison	1-27-94
Weiss, Peck & Greer Corporate Development IV, L.P.	3-10-94
Loomis Sayles Index Option Overwrite Program	6-9-94
Zero Stage Capital L.P. Fund V	6-30-94
Guinness Flight Global Group Trust	8-4-94
IDS Advisory Group	8-11-94
Pioneer Ventures, L.P. II	10-13-94
Seix Investment Advisors	11-7-94
Bachow and Associates	12-15-94
HSBC Asset Management Pacific Basin Equity Fund	2-22-95
Wellington Emerging Market Portfolio	6-14-95
Standard Asset Group	6-21-95
Freedom Capital Management Corporation	6-21-95
RII Timberland III L.L.C.	6-21-95
Cutler & Company, Inc.	7-26-95
Torch IX Institutional Energy Program	8-31-95
Hambro Northern Ireland Venture Partners	11-30-95
AIB Investment Managers Fund	12-7-95

WAIVER/PRIT DATE**MIDDLESEX COUNTY RETIREMENT SYSTEM (continued)**

North Atlantic Venture Fund II
Phoenix Real Estate Advisors (RESA)
AFL-CIO Housing Investment Trust
Redwood Capital Partners II
Harbor Capital Management
Lowe Strategic Opportunities Fund
New England Growth Fund II, L.P.
Irish Life International Equity Product
RII Weyerhaeuser World Timberfund, L.P.

12-7-95
12-28-95
5-2-96
5-2-96
8-15-96
11-6-96
12-2-96
12-11-96
12-11-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: Mellon Trust

MILFORD RETIREMENT SYSTEM

BayBanks Investment Management, Inc.
BayBank Small Cap Fund

1-18-89
4-26-95

Consultant: The Hannah Consulting Group, Inc.
Custodian: BayBank

MILTON RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-86

MINUTEMAN REG. SCHOOL DIST. RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-85

MONTAGUE RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-86

NATICK RETIREMENT SYSTEM

United Investment Counsel
MetLife Bond Fund #135
Hotchkis and Wiley International Equity Group Trust

3-14-85
2-15-95
5-31-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: BayBank

NEEDHAM RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-85

WAIVER/PRIT DATE

NEW BEDFORD RETIREMENT SYSTEM

Massachusetts Financial Services
Aeltus Investment Management, Inc.
Allegis Realty Investors LLC
Aeltus - International Equity
Pension Reserves Investment Trust (PRIT) Fund
BayBanks Investment Management, Inc.

6-15-89
6-15-89
6-15-89
6-15-89
4-1-92
10-1-92

Consultant: Wyatt Investment Consulting, Inc.

Custodian: BayBank

NEWBURYPORT RETIREMENT SYSTEM

Boston Financial Management, Inc.

3-28-85

Custodian: State Street

NEWTON RETIREMENT SYSTEM

1838 Investment Advisors
Freedom Capital Management Corporation
David L. Babson
Putnam International Trust
Wellington Domestic Core Bond Portfolio
Wellington U.S. High Yield Portfolio
Wellington International Bond Pool Portfolio
Mellon Russell 1000 Growth Index Fund
IAI Growth Equity Collective Fund
Putnam Mid-Cap Equity Portfolio

3-19-87
3-19-87
1-21-92
5-27-93
3-8-95
3-8-95
3-8-95
3-7-96
5-30-96
5-30-96

Consultant: Segal Advisors

Custodian: Mellon Trust

NORFOLK COUNTY RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund
Wellington Management Company
Investment Advisors, Inc.
Loomis Sayles & Company
Thompson, Siegel & Walmsley
Keystone Investment Management Corporation
RhumbLine Advisers
Bank of Ireland Group Trust SAF International Equity Sub Trust

11-1-85
6-24-93
12-9-93
12-23-93
12-30-93
1-27-94
7-7-94
3-8-95

NORFOLK COUNTY RETIREMENT SYSTEM (Continued)

Guinness Flight Global Group Trust
Investment Advisers, Inc.

3-8-95
3-28-96

Consultant: H. C. Wainwright
Custodian: Bank of Boston

NORTH ADAMS RETIREMENT SYSTEM

de Burlo Group

3-25-85

Custodian: Fleet Bank

NORTH ATTLEBORO RETIREMENT SYSTEM

PaineWebber Properties III
PaineWebber Properties II
PaineWebber Independent Living Mortgage Fund
Fleet Investment Advisors
RhumbLine Group Trust
Freedom Capital Management Corporation
The Boston Company International Equity Fund

10-27-88
6-22-89
7-13-89
12-26-90
10-1-92
2-11-93
8-15-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: BayBank

NORTHAMPTON RETIREMENT SYSTEM

de Burlo Group

4-18-85

Custodian: BayBank

NORTHBRIDGE RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

1-1-88

NORWOOD RETIREMENT SYSTEM

Dean Witter Realty Yield Plus
EuroPacific Growth Fund
David L. Babson
Boston Company
Legg Mason Capital Management

11-2-89
1-7-92
10-27-94
10-27-94
11-17-94

Consultant: William M. Mercer
Custodian: BayBank

WAIVER/PRIT DATE

PEABODY RETIREMENT SYSTEM

Freedom Capital Management Corporation
The Boston Company International Equity Fund

7-8-85
4-11-96

Custodian: BayBank

PITTSFIELD RETIREMENT SYSTEM

Freedom Capital Management Corporation
Babson-Stewart Ivory International Fund L.P. III
Wright Investors' Service

6-15-89
1-31-96
2-29-96

Custodian: Bank of Boston

PLYMOUTH RETIREMENT SYSTEM

Morgan Grenfell Investment Trust
Templeton Institutional Fund, Foreign Equity Series
Loomis Sayles & Company
Eaton Vance Management
INVESCO Capital Management, Inc.

7-7-94
7-7-94
12-22-94
6-21-95
4-4-96

Consultant: New England Pension Consultants

Custodian: State Street

PLYMOUTH COUNTY RETIREMENT SYSTEM

Internal - John McLellan
L&B Real Estate Counsel III
Babson-Stewart Ivory International Fund L.P. III
Shurgard Institutional Fund L.P. I
Metric Institutional Apartment Fund I
Charles River Partnership VI-A
New England Growth Fund I, L.P.
Corcoran Jennison Apartment Fund
Metric Apartment Co-Investment Trust Fund (MAC Trust)
Charles River Partnership VII
Bank of Ireland Asset Management
Keystone Investment Management Corporation
Van Kampen American Capital Management
Fleet Investment Advisors
Wellington International Stock Fund
Brandywine International Value Equity Portfolio

5-14-85
5-4-89
5-4-89
5-4-89
10-5-89
3-26-91
7-1-92
1-27-94
1-27-94
10-27-94
3-1-95
3-15-95
3-15-95
3-22-95
3-30-95
6-14-95

PLYMOUTH COUNTY RETIREMENT SYSTEM (continued)

New England Growth Fund II, L.P.
Metric Institutional Apartment Fund II

11-9-95
12-11-96

Consultant: The Hannah Consulting Group, Inc.
Custodian: State Street

QUINCY RETIREMENT SYSTEM

Massachusetts Financial Services
Pension Reserves Investment Trust (PRIT) Fund
RhumbLine South Africa Free Group Trust
Freedom Capital Management Corporation
Aeltus Investment Management - DAM Account
RhumbLine Extended Market Fund
State Street Daily Government Corporate Fund

2-9-89
3-1-90
3-13-92
11-17-94
5-4-95
11-6-96
11-22-96

Consultant: Wyatt Investment Consulting, Inc.
Custodian: State Street

READING RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

6-1-88

REVERE RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

10-3-94

SALEM RETIREMENT SYSTEM

Freedom Capital Management Corporation
PaineWebber Properties III
1838 Investment Advisors
Bank of Ireland Group Trust SAF International Equity Sub Trust

11-17-88
11-17-88
4-12-90
8-4-94

Consultant: Becker, Burke Associates
Custodian: BayBank

SAUGUS RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-86

SHREWSBURY RETIREMENT SYSTEM

Income Research & Management
Putnam Core Growth Equity/Derivatives Free Trust
Putnam International Trust
Julius Baer Government Bond International Portfolio

7-29-93
7-29-93
1-27-94
12-22-94

Consultant: Dahab Associates
Custodian: Bank of Boston

WAIVER/PRIT DATE

SOMERVILLE RETIREMENT SYSTEM

BayBanks Investment Management, Inc.
Standish, Ayer & Wood
Loomis Sayles & Company
Lazard Freres International Equity Fund
Standish, Ayer & Wood Fixed Income Fund
Loomis Sayles Investment Trust
Reservoir Capital Management

2-19-92
4-15-92
3-25-93
6-30-94
8-17-95
3-28-96
4-25-96

Custodian: BayBank

SOUTHBRIDGE RETIREMENT SYSTEM

Freedom Capital Management Corporation
INVESCO ADR International Fund

11-9-89
4-13-95

Consultant: Segal Advisors

Custodian: State Street

SPRINGFIELD RETIREMENT SYSTEM

BayBanks Investment Management, Inc.
Freedom Capital Management Corporation
MassMutual Life Insurance Company
Wellington Management Company
Wellington Mid Cap Portfolio
Bank of Ireland Group Trust SAF International Equity Sub Trust

1-2-92
1-2-92
1-2-92
1-2-92
12-31-96
12-31-96

Consultant: Wyatt Investment Consulting, Inc.

Custodian: State Street

STATE EMPLOYEES' RETIREMENT SYSTEM

The State Employees' Retirement System invests in the MASTERS Trust Fund Managed by the Office of the Treasurer. See list of investment counselors for the MASTERS Trust.

STATE TEACHERS' RETIREMENT SYSTEM

The State Teachers' Retirement System invests in the MASTERS Trust Fund Managed by the Office of the Treasurer. See list of investment counselors for the MASTERS Trust.

WAIVER/PRIT DATE

STONEHAM RETIREMENT SYSTEM

L&B Real Estate Property Fund III
L&B Real Estate Property Fund IV
Independence Investment Associates
Bank of Ireland Group Turst SAF International Equity Sub Trust
Income Research & Management

11-17-88
1-15-91
12-10-91
3-24-94
6-23-95

Consultant: The Hannah Consulting Group, Inc.
Custodian: BayBank

SWAMPSCOTT RETIREMENT SYSTEM

Freedom Capital Management Corporation
Montgomery Asset Management
State Street Daily Active Developed Markets Fund

11-30-95
10-3-96
10-24-96

Custodian: Fleet Bank

TAUNTON RETIREMENT SYSTEM

U.S. Trust Company
L&B Real Estate Fund IV
EuroPacific Growth Fund
Apodaca Investment Group, Inc.
ITC Equity Real Estate Securities Fund
Fidelity Real Estate Asset Management II, L.P.
Fidelity Real Estate High Income Fund II
State Street International Index (EAFE) Fund

6-25-85
12-21-89
5-16-90
10-19-95
5-30-96
5-30-96
10-24-96
12-11-96

Consultant: Segal Advisors
Custodian: U.S. Trust

WAKEFIELD RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

7-1-85

WALTHAM RETIREMENT SYSTEM

BayBanks Investment Management, Inc.
BayBank Small Cap Fund

2-11-85
4-13-95

Consultant: Legg Mason Consulting Group
Custodian: BayBank

WAIVER/PRIT DATE

WATERTOWN RETIREMENT SYSTEM

L&B Real Estate Property Fund III
INVESCO, Inc.
Wellington CIF Small Cap 2000
BayBanks Investment Management, Inc.
Putnam International Trust

10-5-89
10-5-89
3-20-91
3-8-95
3-8-95

Consultant: Dahab Associates
Custodian: BayBank

WEBSTER RETIREMENT SYSTEM

Loomis Sayles & Company

2-24-94

Custodian: BayBank

WELLESLEY RETIREMENT SYSTEM

Standish, Ayer & Wood
Standish Small Equity Fund
State Street Research & Management Company
Standish STAR Fund
Standish International Fixed Income Fund
Standish International Equity Fund
Scudder Investor Services

2-27-85
11-17-88
1-23-90
1-2-91
5-8-91
11-17-94
11-17-94

Consultant: William M. Mercer
Custodian: Fleet Bank

WESTFIELD RETIREMENT SYSTEM

PaineWebber Properties III
PaineWebber Properties II
Freedom Capital Management Corporation
State Street Research & Management Company
Loomis Sayles & Company

11-17-88
9-14-89
10-16-90
10-16-90
1-21-93

Custodian: BayBank

WEST SPRINGFIELD RETIREMENT SYSTEM

Fleet Investment Advisors

2-21-86

Custodian: Fleet Bank

WEYMOUTH RETIREMENT SYSTEM

Pension Reserves Investment Trust (PRIT) Fund

10-1-84

WAIVER/PRIT DATE

WINCHESTER RETIREMENT SYSTEM

Freedom Capital Management Corporation
J.L. Kaplan Associates
Sogen Overseas Fund
Rowe Price Fleming Foreign Equity Fund
Warburg Pincus International Equity Fund

4-26-90
10-28-93
2-8-95
2-8-95
6-21-95

Custodian: BayBank

WINTHROP RETIREMENT SYSTEM

Bear Stearns Asset Management

7-29-93

Custodian: BayBank

WOBURN RETIREMENT SYSTEM

David L. Babson
Pension Reserves Investment Trust (PRIT) Fun
Freedom Capital Management Corporation

3-21-88
11-1-95
10-24-96

Custodian: BayBank

WORCESTER RETIREMENT SYSTEM

Fleet Investment Advisors
State Street Research & Management Company
Metlife Real Estate Series II
Bank of Ireland Group Trust SAF International Equity Sub Trust
Investment Advisers, Inc.
New England Growth Fund I, L.P.
Fleet Investment Advisors
Rice Mezzanine Lenders III, L.P.
David L. Babson
Merrill Lynch Asset Management
Putnam International Fixed Income Trust
MIG Residential REIT
Equitable Value Enhancement Fund
Metric Apartment Co-Investment Trust Fund (MAC Trust)
L&B Property Fund IV
Pioneer Ventures, L.P. II
Boston Capital Ventures III
Dillon Read Venture Partners III
Equitable Value Enhancement Fund II LLC
Hutchens Investment Management
Loomis Sayles & Company

1-14-87
3-6-91
3-6-91
8-15-91
3-11-92
3-11-92
3-11-92
3-11-92
7-30-92
2-12-93
7-26-93
7-29-93
7-29-93
7-29-93
8-19-93
10-13-94
11-7-94
12-22-94
9-21-95
10-19-95
11-30-95

WAIVER/PRIT DATE

WORCESTER RETIREMENT SYSTEM (continued)

L&B 90's Investment Program

Seligman Henderson Group Trust - International Equity

The Boston Company Emerging Markets Pooled Fund

New England Growth Fund II

12-28-95

7-25-96

7-25-96

12-17-96

Consultant: Dahab Associates

Custodian: State Street

WORCESTER COUNTY RETIREMENT SYSTEM

Wellington Management Company

Harbor Capital Management

David L. Babson

Bank of Ireland Group Trust SAF International Equity Sub Trust

Freedom Capital Management Corporation

Pioneer Ventures, L.P. II

TA Realty Associates Fund III

Putnam Horizon Management Trust

Allmerica Asset Management

Loomis Sayles & Company

Wellington Mgmt. U.S. High Yield Port./International Bond Pool Port.

Zero Stage Capital L.P. Fund V

Keystone Institutional Small Cap Growth Fund

8-21-91

9-8-93

9-8-93

9-8-93

9-15-93

9-29-94

9-29-94

9-29-94

9-29-94

10-6-94

4-26-95

7-19-95

8-15-96

Consultant: Segal Advisors

Custodian: BayBank

The **PENSION RESERVE INVESTMENT TRUST (PRIT)** Fund has retained the following investment counselors as of December 31, 1996:

Domestic and International Equity Managers:

Alliance Capital Management, L.P.
Batterymarch Financial Management
Brown Capital Management, Inc.
Capital Guardian Trust Company
Cursitor Eaton Asset Management (TCW)
Emerging Markets Management
Fidelity Management Trust Company
Kennedy Capital Management, Inc.
Massachusetts Financial Services Company
Pareto Partners
Putnam Advisory Company
State Street Global Advisors
ValueQuest, Ltd.

Domestic and International Fixed Income Managers:

Bankers Trust Company
Baring International Investment, Ltd.
Fidelity Management Trust Company
Froley, Revy Investment Company, Inc.
W.R. Huff Asset Management Company
Pacific Investment Management Company
Putnam Advisory Company
Rothschild International Asset Management, Ltd.

Real Estate Managers:

Aldrich, Eastman & Waltch, Inc.
Bear Stearns Realty Partners
Boston Financial Group, Inc.
Copley Real Estate Advisors, Inc.
Equitable Real Estate Investment Management
Hancock Real Estate Investment Group
Heitman/JMB Advisory Corporation

Real Estate Managers (cont'd):

Invesco Realty Advisors, Inc.
LaSalle Advisors Limited
RREEF America L.L.C.
TA Associates Realty
TCW Realty Advisors

Domestic and International Venture Capital and Special Equity Partnerships:

Advent International
Alan Patricof Associates, Ltd.
Asia Pacific Trust
Belmont Capital Partners II Fund
The Blackstone Group
Wm. Blair Mezzanine Capital Management
Boston Ventures Management, Inc.
Capital Resource Lenders
Citicorp Venture Capital
Commonwealth BioVentures, Inc.
Commonwealth Capital Partners
Davis Venture Partners
Dominion Ventures
Donaldson, Lufkin & Jenrette Merchant Banking Partners
1818 Fund, Brown Brothers Harriman & Company
Equitable Capital Management Corporation
Forstmann Little & Company
Freeman Spogli Equity Partners
Golder, Thoma and Cressey
Hancock Venture Capital Management, Inc.
Hellman & Friedman Capital Partners
Joseph Littlejohn & Levy Fund
Kohlberg, Kravis & Roberts and Company
Landmark Equity Partners
Madison Group, L.P.

Domestic and International Venture Capital and Special Equity Managers (cont'd):

Massachusetts Technology Development Corporation
Menlo Ventures
Morgan Holland Partners
Nash, Sells & Partners, Ltd.
Schroder Ventures
Smith Offshore Exploration Company
Southern California Ventures
T.A. Associates
Thomas H. Lee Equity Partners, L.P.
Venture Capital Fund of New England
Vestar Capital Partners
Vista Partners
Welsh, Carson, Anderson & Stowe
Willis Stein

Consultants

Pathway Capital Management
The Townsend Group
Morris & Morse Company, Inc.
Wilshire Associates, Inc.

Custodian

State Street Bank and Trust Company

The **MASTERS** Trust has retained the following external investment counselors as of December 31, 1996:

DOMESTIC EQUITY MANAGERS

Alliance Capital
Capital Technology, Inc.
Chancellor Capital
Dimensional Fund Advisors
Emerging Growth
Fidelity Management Trust Company
Goldman Sachs Company
Independence
Lazard Freres Asset Management
Massachusetts Financial Services
Numeric Investors
State Street Global Advisors
Target Investors, Inc.

INTERNATIONAL EQUITY MANAGERS:

Capital Guardian
Marathon Asset Management
PanAgora Asset Management

FIXED INCOME MANAGERS:

BZW Barclays Global Investors, N.A.
Danson & Neuhar
Dodge & Cox
GW Capital
Income Research and Management
Loomis Sayles
Morgan Grenfell
Massachusetts Financial Services
The Putnam Companies

FIXED INCOME MANAGERS (cont'd):

Sentry Financial Corporation
Solon Asset Management
Trust Company of the West

CONSULTANT:

Wilshire Associates, Inc.

CUSTODIAN:

State Street Bank & Trust Company

PENSION INVESTMENT ADVISORY UNIT

ROBERT P. SHAW

Director

VICTORIA MARCORELLE

Assistant Director

ROSAMOND C. COTTER

Fund Accountant

KEVIN D. MORRISON

Examiner

ROSE CIPRIANI

Administrative Assistant

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BOSTON, MA 02108
(617) 727-9380**